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GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF AGRICULTURE

MONTHLY REPORT

APRIL, 1938

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GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF AGRICULTURE

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April, 1938

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CONTENTS

PAGE

AGRICULTURAL CONDITIONS:—

THE CROPS, SUPPLIES AND PRICES 654
LIVE STOCK 658
THE COST OF LIVING INDEX FIGURE 660
THE MARKETS DURING MARCH 660
TABLE OF EGG PRICES 660

ARTICLES:—

The Production of Eggs of Quality 662
Horse Breeding 665
Grass Land Improvement and Increased Livestock 667

MARKETING SCHEMES:—

Agricultural Marketing (Pig Industry) Act, (N.I.), 1934:—

PIG PRICES FOR APRIL, 1938 669
GRADING STATISTICS 671
COST OF STANDARD PIG RATION 672

The Cattle Industry (Emergency Provisions) Acts, 1934 and 1935, and The Livestock Industry Act, 1937:—

SUMMARY OF PAYMENTS 673
NUMBERS CERTIFIED FOR SUBSIDY 673

AGRICULTURAL NOTES:—

SEASONAL FARM NOTES 674
SEASONAL LIVESTOCK NOTES 677
SEASONAL GARDEN AND ORCHARD NOTES 678
SEASONAL POULTRY-KEEPING NOTES 680

PAGE

ANNOUNCEMENTS AND REMINDERS:

GENERAL 682
CLASSES 682
SIXTEENTH EGG-LAYING TEST AT STORMONT 682

AGRICULTURAL PRICES:—

FEEDING STUFFS AT SPECIFIED CENTRES 686
FEEDING STUFFS (WITH CALCULATED VALUES OF PROTEIN AND STARCH EQUIVALENTS) 687
FERTILISERS AT SPECIFIED CENTRES 692
AGRICULTURAL SEEDS 694
FAT STOCK AT BELFAST AUCTION MARTS 695
OTHER LIVE STOCK AT BELFAST AUCTION MARTS 696
LIVE STOCK AT FAIRS 697

AGRICULTURAL TRADE RETURNS:—

SHIPMENTS OF LIVE STOCK FROM NORTHERN IRELAND PORTS 698
IMPORTS AND EXPORTS OF AGRICULTURAL PRODUCTS 699
NUMBERS OF CATTLE AND ACCOUNT OF TRADE AT FAIRS 700

MINISTRY OF AGRICULTURE

MONTHLY REPORT

APRIL, 1938.

Although this month opened rather doubtfully with a short period of heavy rains, weather conditions, as in March, have been exceptionally good for the time of year, and up to the time of writing there has been a succession of fine and bright days. Day temperatures have, as a rule, remained high, with long spells of strong sunshine, but latterly there have been several sharp ground frosts at night-time. These have caused some damage to the young plants in the early districts, and the apple blossoms which were in an advanced stage of growth as the result of a very early spring, also suffered some injury. Field work is going on steadily, but rain is needed to assist in cultivation operations and to stimulate growth.

The livestock industry remains in a very satisfactory state, and although the recent temporary restrictions imposed by the Ministry of Agriculture and Fisheries over a wide area in England resulted in the closing of many English markets of importance to Northern Ireland stock owners for a few days, no appreciable dislocation of trade resulted in Northern Ireland.

In this issue the topical subject of egg production is dealt with on page 662, and producers may find in the article some additional information and advice which may be helpful to them in marketing their produce in accordance with the provisions of the Marketing of Eggs Acts (Northern Ireland), 1924 to 1937.

AGRICULTURAL CONDITIONS.

AGRICULTURAL CONDITIONS AT 1st APRIL, 1938.

Contrary to the seasonal tendency the weather during March was generally very dry and mild. In the first three weeks the rainfall in most parts of the country was unusually light, and on the many days when there were long spells of bright sunshine, temperatures reached summer levels. Later, although conditions became less settled, with occasional heavy showers and cooler temperatures, March "went out" as it "came in"—in very lamb-like fashion this year. With the continuance of favourable weather, farmers were able to make further rapid progress with spring cultivations and in most areas the work is now about three or four weeks ahead of the usual seasonal schedule. This is particularly true of farms situated in the early districts, and in light soil areas where soil conditions were suitable for the preparation of the seed beds and the reception of seed during the early part of the month. On some farms the work reached a very advanced stage, and the sowing of lea oats was completed, while some spring wheat and some barley were sown, and good progress was made with the planting of potatoes. Although all field work was interrupted later by the heavy showers that fell in the third and fourth weeks, some progress was again possible during the last few days of the month. Notwithstanding the many favourable opportunities afforded by the unusually open weather conditions of last month, it was rather remarkable how progress with farm work differed throughout the province. While it was reasonable to expect the work to be well advanced in most of the early districts, and rather less progress to be made in late areas where the condition of heavy soils had precluded the possibility of rapid progress being made with the work of cultivation, it is nevertheless difficult to reconcile the fact that on some farms in districts where spring work is usually done reasonably early, pits of potatoes and roots remained to be cleared from some fields at the end of March, and a good deal of ploughing was still to be done. As a general rule, however, ploughing in the late districts was being done rapidly, as with the ground in a good dry state it was a much less laborious task than is usual at this time of the year. The sowing of oats and the planting of potatoes were also carried out on a good number of farms.

As indicated, temperatures were very high for the time of year, and although in the second half of March there was a noticeable drop during the dull and wet days, ground frosts were almost entirely absent. These mild and, later,

moist conditions were conducive to rapid growth, and this was reflected in the condition of the wheat brairds and, to a more remarkable extent, in the improvement of pastures. The "spring" of growth was exceptionally early this year, and grass is now rather more plentiful than usual at this time of the season. This is best seen where early applications of phosphates had been made. Incidentally, there was a considerable spurt in the demand for lime during last month, and in some areas the lime works were unable to fulfil farmers' requirements. Heavy supplies were, however, delivered during the month, and applications were made on a further increased scale. The use of phosphatic manures on pastures, however, was relatively small during March.

As a result of the early spring and the improvement in pasturage, the problem of feeding stock has eased further. The use of supplies of home-grown foods on most farms has decreased, and it is considered that there will be an appreciable surplus of roots, grain and fodder this year. There was also a slackening in the demand for purchased feeding stuffs, supplies of which were readily obtainable throughout March at prices showing a slight downward trend in most instances.

The mild and dry weather has had most beneficial effects on outlying cattle and sheep, and with the better grazing conditions the practice of hand-feeding decreased during the month. Lambing made excellent progress, and is now nearing completion. A very good crop is expected to result, and losses have been rather smaller than usual with the mild weather. A feature of the cattle trade last month was the steady improvement in the demand for stores, the prices of which reached very high levels at the close. With the heavy sellings of store animals of late it is reckoned that the production of beef cattle will tend to shorten further, but as far as present indications go, this tendency may be counteracted by the firm state of the beef market, in addition to which the subsidies available under the Live Stock Industry Act, 1937, continue to make the production of fat cattle a reasonably profitable business.

THE CROPS.

WHEAT.—Recent reports more or less confirm previous statements to the general effect that there has been a larger area sown under this crop in nearly all districts compared with the previous season. As was to be expected, the increase has been most marked in those districts where the unfavourable weather of the previous year precluded work in that direction. The bulk of the new crop was sown during the autumn months, and, relatively speaking, a much smaller area has been sown later, this year, than usual. With the weather remaining very mild for the season, the brairds have made very satisfactory progress, and are now showing up extremely well.

The old crop has now all been threshed. There were no records of sales of grain during the month under review.

OATS.—In the early districts rapid progress was made with the sowing of this crop on lea ground and, in general, the work is about one month ahead of last year when, it will be remembered, much less favourable climatic and ground conditions prevailed. Some sowings on potato and turnip ground have also been made. The work was held up by the heavy showers at the end of March, and, on many farms, in the heavy soil areas and in late districts a start has not yet been made.

Most of last season's crop has been threshed, and although in the aggregate smaller supplies were marketed than in February, there were steady offerings throughout March, for which prices were on average a shade firmer on the month at 7/7¼d. per cwt., or 1d. more than for February. Oat straw was little changed in quantity as compared with February, and stationary in price at 44/3d. per ton.

BARLEY.—In the case of this crop also sowings were carried out in the early districts during the many favourable opportunities in the early part of March and, although progress was retarded later by the heavy showers, a fair proportion of this work has now been completed. It is estimated that in most of the barley-growing districts a slightly larger area will be sown under barley this year than in 1937.

FLAX.—With enquiries for seed coming in very slowly last month, the question of the acreage likely to be sown under flax this season remains very open, but the general opinion is that if a change does occur it will probably mean a decrease on the year.

In a few districts a very small percentage of the crop now remains to be scutched, this work having been completed elsewhere some little time ago. The results from last month's scutchings were much the same as formerly as regards yields, but in one or two instances complaints were made of the quality being rather less satisfactory than in the earlier part of the season. The quantity marketed during the month was much smaller than in February, and prices eased gradually during March and averaged 9/8½d. per stone, as against 9/11d. for the previous month. The range of prices at all centres last month varied from 7/6d. per stone for indifferent fibre, to 11/3d. per stone for good quality flax.

POTATOES.—In most districts the lifting of potatoes from the pits was completed early last month, and elsewhere steady progress was being made. Some planting was also done during the month, but the work had not commenced on a general scale at the end of March.

The tubers are keeping well and, generally speaking, are in much better condition than last year. It is reported that losses from rotting and disease have been relatively smaller than usual on account of the milder weather prevailing during the winter and early spring. Supplies are being used up at a good steady pace for stock feeding, but as a result of the continued dullness of trade there is still a large surplus of good quality ware potatoes available on most farms, and estimates of this vary from 20 per cent. to 50 per cent. of the entire crop harvested in each case. The demand for seed potatoes has been fair during the month, and business in this end has been rather slower than a season ago. It is as yet rather early to attempt to forecast the extent of the new season's crop but it is understood that most farmers will, in all likelihood, plant on a similar scale to last year.

Larger supplies of potatoes were marketed for local consumption during March than in February, and the average quotation for the month for all classes was 1½d. cheaper at 2/2d. per cwt. The Arran Victory variety was 2d. cheaper at 2/0¾d. per cwt., whilst Kerr's Pink was 1d. cheaper at 2/4¾d. per cwt. Shipments during the month increased, but they were generally below those of a year ago as the following figures show:—

Week ended	*Tons*	*Week ended*	*Tons*
5th March, 1938 ..	6,741	6th March, 1937 ..	4,932
12th ,, ..	6,440	13th ,, ..	6,011
19th ,, ..	6,198	20th ,, ..	6,500
26th ,, ..	5,059	27th ,, ..	8,983
2nd April ..	5,398	3rd April ..	6,570

Growers' prices steadily declined, and for the week ended the 2nd April ware varieties were selling at the low levels shown below:—

	Bagged	*Loose*
Up-to-Date (Red Soil) ..	£1 10 0 to £2 2 6	£1 5 0 to £1 10 0
Arran Banner	£1 5 0 to £1 15 0	£1 5 0
Arran Consul	£1 10 0 to £1 17 6	£1 5 0
Arran Victory	£1 10 0 to £1 15 0	£1 5 0 to £1 10 0
Kerr's Pink	£1 10 0 to £2 2 6	£1 10 0 to £1 15 0

Prices for seed potatoes intended for shipment also cheapened on the month, Majestic being about 5/- cheaper per ton at from £3 5s. to £3 10s., and Arran Banner 10/- per ton cheaper at £2 10s.

Roots.—There are still fairly large supplies of turnips available on farms and, generally speaking, there is no likelihood of a shortage being experienced before the end of the season, more especially since grass lands have shown such an early improvement this year. Turnips have kept fairly well as a rule, but growing crops have bolted to seed early as the result of the unusually mild weather. Mangels also have kept well in storage, and their use for stock feeding is now becoming fairly extensive. In the case of these roots also there may be a surplus at the end of the season on some farms.

HAY.—Supplies remained fairly plentiful, and now that grass lands have improved, the use of hay for feeding to outlying cattle and sheep may lessen considerably, and there may be an appreciable carry-over of supplies to next season.

There were larger quantities of hay marketed last month than in the previous month, and the downward trend of prices reflected the position of supplies throughout the country generally, as well as the slackening of the demand resulting from the mild weather and the improved state of pastures. Upland hay moved steadily downward, and on average was 3/3d. cheaper at 58/5d. per ton, whilst price movements of meadow hay were irregular. The average quotation was 2/11d. below that for February at 45/9d. per ton.

SEEDS.—At a few market centres small supplies of ryegrass seed continued to be offered, and whilst some lots of Italian improved in price, especially towards the end of March, to around 11/1d. per cwt., perennial was little altered on the month at 8/8¼d. per cwt.

In regard to seeds, the better weather ruling this season has been responsible for an improvement in the general demand, as compared with a year ago. From the comparisons of retail cash prices of agricultural seeds at the 1st April, 1938, made on page 694, with those for last year, it may be concluded that corn seeds are generally firmer, whilst those for root and green crops, potatoes and flax, are generally cheaper than in 1937.

LIVE STOCK.

CATTLE.—Store cattle have thriven much better of late with the mild weather conditions and the better supplies of keep available. While hand-feeding was, in consequence, somewhat curtailed, many owners, anxious to obtain the full benefits of the recent sharp rise in prices, maintained supplies of fodder and roots on a liberal scale. The general tendency at fairs held throughout March was for the offerings of store animals to increase in size, but the numbers still remained small for the time of year. A steady keen demand was experienced more especially for strong well-conditioned polly bullocks for short keep, nice coloured heifers for breeding, and good young animals for grazing. Prices showed a marked improvement and rose to very high levels at the end of March.

In regard to dairy cattle also the milder weather conditions, together with the improvement in the quantity and quality of keep, have effected a general improvement in the condition of the animals, and were also reflected to some extent in the milk yield which was well maintained at the normal seasonal level. The health of the herds has given little cause for anxiety. Calving proceeded satisfactorily, but there were the usual number of cases of abortion and sterility, and felon also occurred in one or two instances.

Small to medium offerings of dairy cattle included a fair number of good quality animals, and for these trade ruled on former lines, and late rates were usually repeated. For the greater number of cattle, however, a duller enquiry was passing, and prices tended easier. The best demand was for extra good young springers and newly-calved cows at firm rates.

Sheep.—All classes of sheep have benefited from the warmer temperatures and the increased amount of "keep" available, but there were still a fair number of backward animals to be seen at fairs. Lambing, which commenced on a general scale later than usual this year, made excellent progress and, in the case of the white and cross-bred types, was practically completed at the end of the month. Among the black-face flocks it continues under very favourable conditions and with excellent results. It is estimated that the crop will be a heavier one than last year, and losses are not unduly severe, although many deaths have occurred among weak lambs and on farms where stray dogs had been permitted to wander after dusk with serious consequences to the breeding flocks. Supplies of sheep and lambs at fairs remained small. Except for a local enquiry for fat animals of moderate finish trade remained dull and prices were generally little altered.

Pigs.—Young pigs were in variable supply throughout March, and a steady active demand accounted for good clearances at prices tending firmer at from 27/6d. up to 42/6d. per head. The small numbers of sows for breeding were usually of better quality. An improvement in price was also noticeable for these, and the rates for the best types of first litter sows ranged from £10 to £12 per head.

Dead pigs for curing met a very keen enquiry, and supplies in some instances were inclined to be short of requirements.

Horses.—The demand continued fairly steady for good young farm horses but, all over, prices were a little cheaper on the month, the result of a marked advance in spring work on the farm. First quality horses suitable for all forms of farm work ranged from £35 to £45, and secondary types from £20 to £30.

Milk.—A further seasonal increase on a more appreciable scale was noted in the milk yield, and good supplies are now becoming available. Creameries paid easier rates than in February, estimated to vary from 4½d. to 6d. per gallon for milk delivered, the separated milk being returned to the farmer.

The rate of equalisation payments for milk produced in Northern Ireland and delivered to creameries for manufacturing purposes during February, has been determined at ¼d. per gallon in accordance with the Milk and Milk Products Acts (Northern Ireland), 1934 to 1937.

It should be noted that, under the regulations, creameries are required to distribute the equalization payments in accordance with the butter-fat content of the milk received from each supplier.

THE COST OF LIVING INDEX FIGURE.

The cost of maintaining unchanged the pre-war standard of living of working-class families at March 1st, was 56 per cent. above the level of July, 1914, or 1 point lower than at February 1st, but 5 points higher than the figure recorded at March 1st, 1937.

At March 1st the index of retail prices of food in Great Britain and Northern Ireland, as ascertained by the Ministry of Labour, was 40 per cent. above that of July, 1914, as against 42 per cent. at February 1st, and 35 per cent. a year ago. The fall in the index of 2 points was mainly due to a further reduction in the price of eggs; in some areas milk and butter also were cheaper.

THE MARKETS DURING MARCH.

Supplies of the principal vegetables at the markets during March were, as a general rule, smaller than the previous month with the notable exception of broccoli, which increased heavily in supply and fell in price, the average quotation per dozen decreasing by 4½d. to 1/8d. This also affected the trade in cabbage which, although in shorter supply, cheapened on the average by 1d. to 1/2d. per dozen. Savoys, however, which also decreased in supply, hardened in price by 1½d. to 1/4¾d. per dozen. Parsley was ¼d. cheaper at 7¾d. per bunch, but leeks remained unchanged at 5¼d. per bunch. Parsnips were 3d. dearer at 7/6d. per cwt., whilst carrots were 5¾d. cheaper at 9/8¾d. per cwt., and garden turnips eased to prices ranging from 6d. to 1/2d. per cwt.

Supplies of farmer's butter were noticeably heavier on the month, both print and lump butter recording increases, but the average prices remained unaltered at 1/4d. per lb. for print and 1/2¾d. per lb. for lump. Hen and duck eggs again recorded seasonal increases in supplies, and prices as fixed by the Ministry continued their downward seasonal trend.

Supplies of hens and chickens in the poultry section were considerably larger, but ducks were in smaller supply. All three classes, however, increased in price, hens rising by 1d. to 1/9¼d. each, chickens by 3d. to 2/10½d. each, and ducks by 1¾d. to 2/2d. each. This trend was also noticeable in the prices per lb. live weight paid by wholesale merchants, which ranged from 8d. to 9½d. for winter chickens, 10d. to 11d. for spring chickens, 3d. to 6¾d. for hens, and 3d. to 7d. for ducks.

At Omagh larger supplies of unwashed wool were unchanged in price at 8d. per lb. for long, and 6d. per lb. for mountain.

MARKETING OF EGGS ACTS (N.I.) 1924—1937.

WHOLESALE DEALERS' PRICES.

The following table shows the prices fixed by the Ministry, and payable by licensed wholesale dealers, for eggs purchased from producers during the

following weeks, as compared with the average prices at markets for the corresponding weeks of 1937.

Week ended	1938				1937			
	Hen Eggs per lb.*		Duck Eggs per doz.		Hen Eggs per lb.		Duck Eggs per doz.	
	s.	d.	s.	d.	s.	d.	s.	d.
March 5th	0	6¼	1	0½	0	7¾	1	0¼
„ 12th	0	6¼	0	11½	0	6¾	0	11¾
„ 19th	0	5¾	0	10¾	0	6½	0	11¼
„ 26th	0	5½	0	9	0	6¼	0	11
April 2nd	0	5¼	0	8	0	5¾	0	10
„ 9th	0	5½	0	7½	0	5½	0	10

*Where hen eggs are delivered by the producer to the packing store of a licensed wholesale dealer of Class A an additional ½d. per lb. is payable; in the case of duck eggs an additional ¾d. is payable for each complete dozen so delivered.

Payment on a quality basis came into force during the week ended 5th March, 1938.

The following are the standard deductions :—

Hen eggs : "Seconds" and soiled eggs ½d. per egg, Rejects ¾d. per egg.

Duck eggs : Rejects 1d. per egg.

THE PRODUCTION OF EGGS OF QUALITY.

The Marketing of Eggs Act, which was passed in 1936, is a measure which has completely revolutionised the marketing of eggs in Northern Ireland. Among the many improvements effected as the result of the passing of that Act, perhaps the most important are:—

(a) the fixing of the prices which are to be paid to producers by wholesale and retail merchants, and

(b) the purchase of eggs on a quality basis, which means that all eggs purchased by wholesale merchants from producers will be paid for according to quality after they have been examined and tested in accordance with Regulations laid down by the Ministry of Agriculture.

The Act provided for the establishment of an Egg Marketing Committee constituted as follows:—Five members, being representatives of egg producers, five members elected by licensed wholesale dealers who grade and pack eggs in accordance with the Regulations, two members elected by licensed wholesale dealers who collect eggs, and three members appointed by the Minister of Agriculture, one of whom is the chairman. The duty of this Committee is to advise the Ministry on all matters such as the determination of prices; the granting of licences to wholesale dealers; the giving of advice and assistance as to production, marketing, research, and such other matters as may be referred to the Committee by the Ministry. This Committee has gone very thoroughly into the whole matter of the cost of collecting, testing, grading, and packing of eggs, and has arrived at the cost or service margin to be paid to the collector and packer for their services. This service margin is divided into two sections, one portion for the actual cost of cases and packing materials in which the eggs are despatched from the merchant's store, and a second portion to cover collection, testing, grading, packing, and all overhead charges and expenses in connection with the packer's business. The first portion varies from time to time according to the actual cost of cases, fillers and flats. The second portion has been fixed on the unanimous advice of the Egg Marketing Committee at 14d. per long hd. Where the producer delivers the eggs to the packer's store himself he is allowed ½d. per lb., which has to be paid by the merchant out of his margin of 14d. The price paid to the producer is the average wholesale price at which the eggs are sold by merchants, less this service margin. It is sometimes stated that by this arrangement the wholesale dealer is assured of his margin no matter what the condition of the market. Against this, however, it should be noted that the buying price is fixed on a basis of the weighted average price received by the merchants. A merchant must, therefore, sell at the average price to get his margin. This provides an incentive to secure the highest possible price, and improved selling by the merchant means better returns to the producer.

The purchase of eggs on a quality basis is of considerable interest to all branches of the industry at present, but of particular interest to producers, some of whom will now be having identification tickets returned to them showing deductions for "seconds", soiled eggs and "rejects". These producers may think they are being penalised by having these deductions made, as compared with the old system where the same price was paid for all eggs irrespective of quality, but producers can be assured that, although certain individuals may be penalised, the industry as a whole, and particularly the careful producers, will benefit. Merchants may have been paying the same price for all eggs purchased irrespective of quality, but as they had to take a lower price for seconds, and as the rejects were a complete loss, they were compelled to take this into account in fixing their buying price, and all the producers, both good and bad, suffered by receiving a lower price than if all the eggs sold had been fresh and clean. The system has one great advantage as compared with the old method, in that each producer will suffer only in relation to the quantity of unsatisfactory eggs sold by him, and those who have always been jealous of the quality and appearance of their produce will reap the benefit of their better handling. It is to be hoped that purchase on a quality basis will have the effect of reducing the number of seconds, and this is of the utmost importance as, unless there is a general improvement in quality during the summer and autumn seasons, the Scheme will not achieve its principal object. Further, it may be noted that the actual number of seconds in a producer's lot is usually an indication of the general quality of the remainder, and where there are a large number of seconds most of the other eggs are usually found to be spoiled and likely to deteriorate rapidly. It therefore follows that, if the number of producers' lots containing seconds is reduced, the general quality of the eggs marketed will be improved.

Acting in their own interests, producers should reduce the sale of poor quality eggs to the lowest possible point, and if any producer finds that supplies marketed contain a fairly large proportion of seconds, in spite of all efforts to have them reduced, he should consult his buyer as to the cause, or make application to the Ministry of Agriculture, Stormont, Belfast, giving full particulars, when the matter will be investigated and advice given as to the best possible methods for improvement. Testing by the single light process which is obligatory in Northern Ireland has reached a very high standard of efficiency and, as it is under constant supervision by officers of the Ministry, producers may have every confidence that deductions are made only where the quality or the appearance of the eggs warrants this penalty.

There are three types of eggs for which deductions are made—first of all seconds, then soiled, and then rejects. Seconds are eggs which are below the standard of quality required for fresh or new-laid, but suitable for immediate consumption. Soiled eggs are also excluded from the standard

required for fresh or new-laid. Both these types are, therefore, classified as seconds, and must be stamped on the shell with the word "Second" and sold as such. Rejects are eggs which are either bad, stale, or contain blood clots or rot, and are not of any market value. One writer who has made a study of egg quality states that eggs deteriorate as much in three days at a temperature of 100°F as they would in one hundred days at a temperature of 33°F. The harmful effect of allowing eggs to remain in nests with broody hens, or in kitchens where the temperature is above normal, can therefore be appreciated. A fertile egg commences to incubate at 68°F. It is, therefore, very important that eggs should be collected regularly and often from the nests and brought into a cool room immediately, and also that all roosters should be removed from the flocks immediately after the breeding season. In view of the fact that quality is now such an important matter under the new Scheme most, if not all, producers could, with very little trouble, provide a suitable place for keeping their eggs. The best method is to collect them from nests in open baskets in which they should be allowed to cool before packing into cases. By this method the open basket being well ventilated allows all the eggs to cool down quickly to the surrounding temperature of the room into which they are brought. If stored in damp, badly-ventilated rooms, they are likely to develop a musty flavour which is impossible to detect without tasting; other flavours are caused by storing with paraffin oil, fish meal or onions. Eggs should, therefore, be kept in a cool properly ventilated room or store well away from anything likely to cause contamination.

Soiled eggs can be prevented by keeping the nests and approaches clean, collecting regularly and often from the nests, and, if soiled eggs are found, by wiping them with a clean damp cloth as soon as possible after collection. If producers require any further information in regard to the proper handling and marketing of eggs they are advised to apply to the Ministry of Agriculture, Stormont, Belfast, for copies of Leaflet No. 57 and "Talks to Producers" No. 39.

It should be clearly understood by the producers that the whole of the burden for the improvement of quality has not been left with them. Collectors and packers are compelled to provide a better service by the use of properly covered vans, where eggs purchased by itinerant collectors can be examined, weighed and packed under cover, and by the use of suitable collection cases and clean, sound, packing materials. Another point is that all eggs must be tested within three days from date of delivery by the producer. This is the maximum time allowed, and a considerable proportion are tested within an even shorter period. Again, packers must despatch eggs within 48 hours after testing. It will thus be seen that the whole process of handling, testing and despatch has been speeded up. Producers' supplies are tested within the shortest possible period after delivery, and at no stage is there any unnecessary delay allowed.

HORSE BREEDING.

The prospects of the horse breeding industry have, in recent years, been the subject matter of much pessimistic speculation. The mechanisation of transport has progressed with such rapidity, and on such an extensive scale, that the Jeremiahs who have been born to prophesy that the day of the horse is done, or at least nearing an end, have not experienced much difficulty in finding arguments to support their views. A very large number of people, even though not quite so gloomy, are of the opinion that the horse breeding industry is, generally speaking, likely to prove a rather unprofitable field of enterprise in the future. The main factors influencing such views have probably been the continual displacement of horse transport by motor transport, particularly in towns and cities, and the diminishing demand for horses on the part of the War Office and other buyers whose purchases in the past reached considerable dimensions. Whilst the growth of mechanical power has not been quite so marked on the farms in Northern Ireland as in other directions, it has been sufficiently extensive to raise doubts in the minds of many in regard to the ultimate survival of the horse as an item of the stock-in-trade of our larger farms.

The statistical and other information in the Ministry's possession goes far, however, to discount these gloomy prophecies of the industry's prospects. A marked growth in the demand for horses, particularly those of the heavy type, and those useful for saddle purposes, has taken place within the last few years, and the prices obtained for horses generally compare very favourably with those obtained for many years earlier. The demand for first-class horses has been particularly brisk, and present indications are that a stage has been reached when the demand for these horses is keeping pace with the supply. In a previous report reference was made to a steady increase in the numbers of licensed stallions in Northern Ireland during recent years. The year 1937 has been a peak year in this respect, as the total number of stallions in that year represented a considerable increase over the average number for the preceding ten years. The figures for the current year include, of course, for the first time, stallions between two years old and three years old, in consequence of the Horse Breeding Act, 1937, which extends the Ministry's licensing scheme so as to apply to all stallions of two years old and upwards, as opposed to the original provision for the licensing of stallions of three years old and upwards.

The following tabular statement enables comparison to be made between the number of stallions licensed this year and the numbers of such stallions in the immediately preceding years :—

Year	Number of Licensed Stallions.			
	Clydesdale	Thoroughbred	Other breeds	Total
1934	88	35	63	186
1935	94	33	67	194
1936	106	30	65	201
1937	130	27	81	238
1938	146	24	88	258

The 1938 figures include 25 Clydesdales and 5 stallions of other breeds between two years old and three years old, but after making allowance for these two-year-old stallions it will be observed that the total number of licensed stallions of three years old and upwards this year is in excess of the numbers of such stallions for the four preceding years, with the exception of 1937.

The recent Stallion Exhibition at Balmoral represented a break with tradition in that it was favoured by ideal weather conditions. While it may safely be said that a substantial improvement in the general standard of the stallions has taken place since the commencement of the premium scheme, it was nevertheless evident that new stallions are required, particularly in the Thoroughbred class if the standard is to be maintained. It is true that the leading prize-winners, and particularly the championship horses "Henry Tudor" (Thoroughbred), and "Carrie's Heir" (Clydesdale) attained to a creditably high standard, but it was obvious that some of the horses lower down in the order of merit list might now be replaced with advantage. The Ministry hopes to be able, by means of its subsidy scheme, to repair this defect as speedily as practicable. At the same time it is fair to say that expert judges are of the opinion that the leading horses in both Clydesdale and Thoroughbred classes would make a good showing in competition with the best horses in their respective classes in Great Britain. This fact affords no small measure of encouragement to those whose endeavour it is to secure an all-round improvement in the quality of horses bred in Northern Ireland.

As a result of the Exhibition County Committees of Agriculture have selected stallions for premiums as follows:—

County	Number of Premiums.		
	Thoroughbred	Clydesdale	Irish Draught and Half-bred
Antrim	3	8	—
Armagh	—	4	—
Down	7*	9*	—
Fermanagh	1	3	1
Londonderry	—	6	—
Tyrone	1	7	1

Note: *Includes one partial premium.

The value of premiums awarded ranges in the case of Thoroughbreds from £45 to £50; Clydesdales from £30 to £45, and Irish Draught and Half-bred stallions from £25 to £30.

GRASS LAND IMPROVEMENT AND INCREASED LIVESTOCK.

The gratifying response on the part of farmers to the Scheme of financial assistance towards the purchase of lime and basic slag gives rise to the hope that farming operations in the immediate future will be marked by steady and determined effort towards increased production, so that there may be an adequate return in respect of the capital and energy expended to secure the improvement of land fertility. It now becomes of the utmost importance that steps should be taken by farmers generally towards the improvement of the pastures to the utmost extent so that their carrying capacity may be increased. Such an improvement will, however, be of little avail unless it is accompanied by an increase in the numbers of live stock available for feeding, and this directs attention once more to the folly of disposing of so many of the best heifers for slaughtering merely because of the lure of the Beef Subsidy Scheme. Admittedly, the combination of attractive beef prices, and the Beef Subsidy payments, often presents a powerful inducement to farmers who are disposed to seize the opportunity of immediate gain regardless of the fact that the ultimate loss may more than offset that gain. A careful study of the situation should, however, serve to convince the prudent farmer that this practice is simply one of "killing the goose that lays the golden eggs."

The disposal for slaughter of breeding stock on the scale existing at present may properly be explained to some extent by pessimism amongst farmers regarding the future. The seeds of this pessimism have undoubtedly been sown in the past when the complete absence of organised marketing for agricultural products occasioned a constant state of alarm in the minds of farmers in regard to the possibility of glutted markets and price slumps. The marketing and other schemes recently put into operation are, it may be confidently claimed, resulting in a much greater measure of stability in prices, and it is hoped that this improvement will enable farmers generally to take the longer

view in their conduct of farming operations. In fact perhaps the most substantial contribution made by recent schemes designed to secure an improvement in agriculture has been the inspiration of a higher degree of confidence in regard to the future. Farmers have thereby been encouraged to plan ahead to a greater extent and should not, therefore, be so prone as formerly to fall for the temptation of any immediate gain which might entail a loss in the long run. In this connection it cannot be too carefully remembered that the Beef Subsidy Scheme, although originally of a temporary character, has now been placed on a permanent basis by the Live Stock Industry Act, 1937. For this reason, when a farmer is confronted with the problem of choosing between the sale of a heifer for beef purposes or retaining her for breeding purposes, he should give due consideration to the fact that in choosing the former course he is not only disqualifying himself from the point of view of benefits arising under the Milk Marketing Scheme, but is also putting himself in the position of losing future benefits which the Beef Subsidy Scheme would afford in respect of the progeny of the retained heifer. The large-scale slaughtering of heifers is seriously jeopardising the source of supply of beef cattle. Consequently, from the point of view of the Beef Subsidy Scheme in itself, the practice is calculated to prove most detrimental to the interests of farmers.

MARKETING SCHEMES.

AGRICULTURAL MARKETING (PIG INDUSTRY) ACT (N.I.) 1934.

PIG PRICES FOR APRIL, 1938.

The following announcement has been made by the Pig Industry Council.

Prices for Dead Pigs.

The prices per dead cwt. for dead pigs sold by producers to curers in Northern Ireland in April, 1938, are as follows:—

Weight Class. (Dead Weight)	Grade 1.	Grade 2.	Grade 3.	U.L. or U.F.	Partly Black Pigs.
c.1.0.21 to c.1.1.13	67/6	64/6	61/6	57/6	5/- below relevant Grade Price.
c.1.1.14 to c.1.2.3	71/6	68/6	65/6	61/6	
Weight Class. (Dead Weight)	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
c.1.2.4 to c.1.2.14	71/6	68/6	65/6	62/6	
c.1.2.15 to c.1.3.14	71/6	68/6	65/6	62/6	
c.1.3.15 to c.2.0.0	68/6	65/6	62/6	59/6	
c.2.0.1 to c.2.0.14	62/6	59/6	56/6	53/6	

Pig Carcases c.1.0.0 to c.1.0.20 :—64/6

The standard dead pig price (Grade B, wt. cl. 2) is 7d. dearer than that for March, 1938

Authorised cuts:—

(a) Broken ham (dry, shank and/or shell bone break)—5% of the gross value of the carcase.

(b) Broken ham (wet break)—12½% of the gross value of the carcase.

(c) Shoulder-stuck carcase—3/- per shoulder affected.

The gross value of a carcase is the product of the dead weight and the relevant grade or other price per cwt.

Where portion of a pig carcase is condemned on account of disease the existence of which could not reasonably have been known to the producer before despatch to the curer, the appropriate grade price (or fixed price if the carcase weighs not less than 1 cwt. 0 qr. 0 lb. and not more than 1 cwt. 0 qr. 20 lb.) shall apply. If the carcase is wholly condemned on account of disease the existence of which could not reasonably have been known to the producer before despatch to the curer the relevant Grade 2 or Grade B price (or fixed

price if the carcase weighs not less than 1 cwt. 0 qr. 0 lb. and not more than 1 cwt. 0 qr. 20 lb.) shall apply.

The foregoing prices do not apply in the case of (a) wholly black pigs, boars, rigs or stags, sucked sows, and pig carcases weighing under c.1.0.0 or over c.2.0.14, and (b) pigs visibly diagnosable as diseased before despatch by the producer and subsequently condemned; emaciated or screw pigs, smelling pig carcases with definite indications of putrefaction, and pig carcases badly abused or damaged before being handed over by the producer to the curer.

Prices for Wiltshire Pigs Sold on Direct Contract.

In the case of pigs sold alive under direct contract to Wiltshire curers the prices per dead cwt. payable for pigs delivered in respect of the month of April, 1938, are as follows:—

Weight Class. (Dead Weight)	Grade 1.	Grade 2.	Grade 3.	U.L. or U.F.	Unsuitable.
c.1.0.21 to c.1.1.13	77/6	74/6	71/6	67/6	64/6
c.1.1.14 to c.1.2.3	77/6	74/6	71/6	67/6	64/6
	Grade A.	Grade B.	Grade C.		U.L. or U.F.
c.1.2.4 to c.1.2.7	74/6	71/6	68/6		65/6
c.1.0.0 to c.1.0.20	Suitable 66/6		Unsuitable 64/6		
Over c 1.2.7	On the same basis as pigs sold dead.				

The standard live pig price (Grade 2, wt. cl. 2) is 7d. dearer than that for March, 1938.

Prices for Live Pigs Sold to the Pigs Marketing Board (Northern Ireland).

In the case of pigs sold alive to the Pigs Marketing Board during April, 1938, the prices per live cwt., according to grade, are as follows:—

Live Weight.	Grade 1.	Grade 2.	Grade 3.	Unsuitable.
c.1.1.14 to c.1.2.13	50/–	50/–	50/–	48/6
c.1.2.14 to c.2.0.0	58/3	56/–	53/9	U.L. or U.F. 50/9 / 48/6
c.2.0.1 to c.2.1.14	53/9	51/6	49/3	47/–
c.2.1.15 to c.2.2.7	51/6	49/3	47/–	44/9
c.2.2.8 to c.2.2.21	47/–	44/9	42/6	40/3

These prices do not apply to live pigs under c.1.1.14 or over c.2.2.21, live pigs intended for breeding, live boars, live sucked sows, rigs or stags,

injured or diseased pigs, live in-pig gilts, or live pigs sold (on contract registered with the Pig Industry Council) to curers in Northern Ireland. All other live pigs inside the weights c.1.2.0 to c.2.2.21 can be sold only to the Board.

Authorised Deductions.

Every pig (dead or alive) sold to a curer or to the Pigs Marketing Board is subject to a levy and contribution at present amounting to 1/-.

In addition to this amount, a deduction of 4d. per pig may be made in the case of sales to curers to cover insurance, so that the producer will not suffer financial loss if the carcase is condemned as unfit for human consumption.

GRADING STATISTICS.

Table showing the percentages of pig carcases falling within the weight and grade classes indicated during February, 1938.

Under c.1.0.21		c.1.0.21 to c.1.1.13					c.1.1.14 to c.1.2.3					Totals
Suitable	Unsuitable	Grade 1	Grade 2	Grade 3	U.L. & U.F.	U.	Grade 1	Grade 2	Grade 3	U.L. & U.F.	U.	
1.36	.25	2.85	1.64	.53	.26	.02	4.59	6.05	2.57	1.27	.03	21.42

Grade A.				Grade B.				Grade C.				
1	2	3	4	1	2	3	4	1	2	3	4	
8.83	19.62	3.12	.68	6.48	19.39	4.29	1.29	2.22	7.46	1.09	.29	74.76

Ungraded Carcases.						
Under Grade A measurements. U.L.	Over Grade C measurements U.F.	Wholly condemned U1.	Wholly black, injured or damaged U2.	Overweights, boars, sows, etc. X.	Partly Black Y.	
.04	2.25	.03	.54	.92	.04	3 82
					Total	100%

These figures have been calculated from the purchase and grading statements which the curers furnish to the Ministry.

The volume of trade in pig carcases during February was again slightly reduced on the month. The average value per carcase was 1/5d. cheaper at £5 11s. 3d. The average weight dropped by a further 3 lbs. to c.1 2q. 19lb., and the average price per cwt. rose by 5d. to £3 6s. 9d.

The following table gives the percentage results of an analysis of the purchase and grading statements furnished by Wiltshire Bacon Curers in respect of live pigs delivered on direct contract by producers during the month of February, 1938.

Weight Class.	Grade 1.	Grade 2.	Grade 3.	Unsuitable U.L. or U.F.	Total
Under c.1.0.0 ..					
c.1.0.0 to c.1.0.20 ..	—	—	—	—	10.00
c.1.0.21 to c.1.2.3 ..	49.60	35.20	3.20	1.20	89.20
	Grade A.	Grade B.	Grade C.		
c.1.2.4 to c.1.2.7 ..	.80	—	—	—	.80
c.1.2.8 to c.1.3.14					
				TOTAL	100

The average net price per cwt. in respect of these deliveries works out at £3 13s. 7d. after making allowance for insurance and contribution to the Pigs Marketing Board.

The average weight works out at c.1.1.13, the net average price per pig being £5 0s. 3d.

COST OF STANDARD PIG RATION.

The average retail cash price per cwt. of the standard ration for the sixteen weeks' period ended 19th March, was 10/3½d. This figure has been calculated by the Ministry from returns collected from 10 representative centres in Northern Ireland.

The following is the ration upon which the feeding cost is based:—

Maize Meal	30%
Barley Meal	30%
White Pollards	20%
White Bran	10%
Meat Meal (60% Protein)	10%

THE CATTLE INDUSTRY (EMERGENCY PROVISIONS) ACTS, 1934 AND 1935 AND THE LIVESTOCK INDUSTRY ACT, 1937.

The following is a summary of payments made under these Acts up to and including 26th March, 1938.

Live Weight	*Number of Animals*	*Total Amount paid* £ s. d.
England and Wales ..	3,943,917	9,437,907 4 3
Scotland	1,193,725	3,015,039 19 8
Northern Ireland ..	418,682	875,732 18 0
Total (United Kingdom) ..	5,556,324	13,328,680 1 11
Dead Weight		
England and Wales ..	127,331	319,907 8 8
Scotland	37,017	102,854 0 7
Total (Great Britain) ..	164,348	422,761 9 3

NUMBERS CERTIFIED FOR SUBSIDY.

The numbers of fat cattle certified for payment of subsidy, published by the Livestock Commission in respect of the month of February, 1938, are shown hereunder:—

	February, 1938					Corresponding totals in	
	Home-bred		Imported		Total		
	Ordinary Grade	Quality Grade	Ordinary Grade	Quality Grade		Feb., 1937	Feb., 1936
England	29,011	27,502	7,495	11,915	75,923	87,436	86,982
Wales	4,121	1,603	64	93	5,881	7,604	8,077
Scotland	2,779	15,290	822	9,402	28,293	30,061	29,578
Northern Ireland	7,316	1,186	487	173	9,162	12,301	13,795
United Kingdom	43,227	45,581	8,868	21,583	119,259	137,410	138,432

AGRICULTURAL NOTES.

SEASONAL FARM NOTES.

The present season, with its exceptionally fine weather conditions, has been noteworthy for the extent to which farmers have taken advantage of the opportunity thus provided to clean the land thoroughly before sowing and planting took place. This programme of weed destruction, which, if possible, should include the collection and burning of the weeds, should be continued throughout the preparation of the land in which the crop has not yet been planted. The benefits resulting from such a programme will be seen in the shape of reduced labour costs for keeping down weeds during the growing season, in a stronger, cleaner crop, and in increased yields.

Oats.—Should the present weather continue the sowing of this crop will have been completed by the time these notes appear, but during the few weeks following sowing it will be necessary to keep a close watch on the brairds for evidence of attack by leather-jacket grubs, particularly in oats following old pasture. If the braird shows signs of turning yellow, or bare patches begin to appear, attacks by that pest should be suspected and a poisoned bait applied immediately. Satisfactory control of leather-jacket grub attacks in oats and barley crops has been obtained from the application of a bait composed of 1 lb. Paris Green and 28 lb. bran, this quantity being sufficient to treat one acre. The Paris Green should be thoroughly mixed with the bran, and the mixture moistened with water, or better, with water to which a little treacle has been added, and the bait should be broadcast over the braird in the evening of a fine day. As Paris Green contains arsenic, great care must be exercised in its use, and the bait kept out of the reach of farm animals and poultry after it is mixed. The best control is obtained where the bait is applied immediately the first signs of attack are seen, and before serious damage to the braird has been caused. Further advice in dealing with this pest is given in Leaflet No. 22.

Potatoes.—The planting of maincrop varieties should be completed as soon as possible, and care should be taken in the case of seed from healthy stock to ensure proper isolation from the ordinary farm stock of potatoes, otherwise the healthy stock may become infected with such diseases as leaf roll and mosaic. If it is not possible to grow the healthy stock in a separate field, it should be separated from the other potatoes by a few drills of turnips or cabbage.

Early potatoes should receive ample cultivation, not only to keep down weeds, but to give the crop the best possible conditions for rapid growth and early maturity.

Wheat.—Autumn-sown wheat, if in a backward condition, will benefit from the application of a dressing of 1 cwt. sulphate of ammonia, nitro-chalk, or nitrate of soda, per statute acre. The braird should afterwards be lightly harrowed.

Turnips.—Attention is again drawn to the advisability of liming the land before sowing this crop, particularly where a field is known to be susceptible to "finger and toe" or "club-root" disease. The application of about 2 tons of burnt lime per statute acre after the final ploughing is recommended.

For manuring this crop, a moderate dressing of farmyard manure, with from 4 to 6 cwt. per statute acre of a phosphatic manure such as superphosphate, Semsol, high-grade basic slag, or Gafsa rock phosphate, will generally give good results. If farmyard manure is not available, a dressing per statute acre of from 1 to 1½ cwt. sulphate of ammonia, and from 1½ to 2 cwt. 30 per cent. potash salts, in addition to 6 cwt. phosphatic manure, should be applied.

For land subject to "finger and toe" disease, basic slag should be used in preference to other sources of phosphates. It should be noted, however, that basic slag should not be mixed with sulphate of ammonia, but should be applied separately.

Information regarding the most suitable varieties of turnips for any district may be obtained from the Agricultural Instructor for the area.

Mangels.—As a succulent food for use towards the end of winter, when supplies of turnips are running low, there is much to be said in favour of growing a small area of mangels on the average farm. The crop will not give the best results unless it is heavily manured, the usual dressing being from 20 to 25 tons of farmyard manure, along with a mixture of 2 cwt. sulphate of ammonia, 4 cwt. superphosphate, and 4 cwt. kainit per statute acre. A top-dressing of 1 cwt. nitrate of soda per acre after thinning is beneficial.

Cabbage and Kale.—These crops are of particular value in providing a supply of succulent green food when grass is failing in autumn and early winter, not only for dairy cows, but for most other classes of farm stock. On many dairy farms they are replacing a portion of the root crop, and they can be thoroughly recommended for growing on all farms, particularly on those where milk production is practised. They furnish an abundant supply of green food which is consumed eagerly by stock, and which helps to keep the animals in a healthy, thriving condition.

In the case of cabbage, the Early Drumhead variety is recommended. The seed may be sown in drills in the same way as turnips, the seeding being at the rate of from 3 to 4 lb. per statute acre. The plants should be singled to 24 inches apart.

Marrowstem and thousand-headed kale are sown in the same way, but the plants should be singled to from 6 to 9 inches apart.

Cabbage and kale require liberal manuring. A heavy dressing of farmyard manure is necessary, and should be applied at the rate of from 20 to 25 tons per acre, along with 2 cwt. sulphate of ammonia, 4 cwt. superphosphate, with the addition, in the case of light lands, of 1 cwt. 30 per cent. potash salts.

Flax.—To secure the best results from this crop, the land where it is to be sown should receive a dressing of from 1 to 1½ cwt. muriate of potash, and ½ cwt. sulphate of ammonia several days before sowing the seed. If the land is already in good condition, the sulphate of ammonia should be omitted. Those contemplating the sowing of flax should read Leaflet No. 1, which contains information of interest regarding varieties, rates of sowing, manuring, etc.

Pastures.—Overstocking of new pastures should be avoided during the early weeks of the grazing season, as injury caused by excessive grazing at this period before the grasses are well established will have a detrimental effect on the pasture during later months.

Seeds Mixtures.—In laying down land to pasture, care should be taken to use a mixture which contains sufficient of the seeds of permanent grasses and clover to ensure obtaining a good sole of pasture during the time the land is in grass. There is often a temptation to sow a mixture which, while giving an exceptionally good hay crop in the first year, is not suitable for the production of good pasture. It must not be overlooked that the ryegrasses and red clovers are not truly permanent, and that a mixture which contains a preponderance of these, and is deficient as regards the seeds of permanent grasses, like cocksfoot, timothy and rough-stalked meadow grass, will not produce a good pasture, although being quite suitable for the production of a good crop of first-year hay. In all cases where land is being laid down to pasture for two or more years, it is essential to include a good proportion of permanent grasses (cocksfoot, timothy, and rough-stalked meadow grass) in the seeds mixture. It is also essential to include wild white clover; and such a mixture, along with good management, will give a very good permanent pasture capable of withstanding hard grazing. It should be noted, further, that the inclusion of the seeds of permanent grasses will not interfere with the saving of ryegrass seed, as these grasses do not ripen their seed in the first year.

In no case should a rough-and-ready mixture of unknown constitution be sown; the purchaser should insist on having a simple mixture of the seeds which have been found to do best in his district made up in the proper proportions, and when in doubt as to the quality of the seeds, he should send samples to the Ministry's Seed Testing Station for analysis. The charge for

testing is 3d. per sample, and the service is a sound precaution against purchasing inferior seeds.

Information regarding suitable seeds mixtures may be obtained from Leaflet No. 40.

SEASONAL LIVESTOCK NOTES.

Ox Warble Fly.—In accordance with the Ox Warble Fly Order, the second dressing of cattle for the destruction of warble-fly maggots should have been applied between the 12th and 19th of April, and the third dressing must be applied during the period from the 10th to 17th May. It is essential that the dressing should be carried out within the stated periods, as otherwise some of the maggots may escape and give rise to a new brood of flies which will cause re-infestation by the pest. It will be appreciated, therefore, that to secure the complete extermination of the fly the treatment will have to be carried out on all cattle, and the specified times for the dressings adhered to rigidly. Neglect to carry out the terms of the Order is likely to lead to a prosecution. Information regarding suitable dressings and the method of application is given in Leaflet No. 64, and the names of the materials recommended are given in Circular No. 13. Care should be taken in all cases to see that a reliable brand of material is obtained and that the wash is made up in the exact proportions recommended by the makers.

Calf Rearing.—One of the chief factors in the satisfactory rearing of calves, as of all other young stock, is management, and the best results can be obtained only where the breeding, feeding, and management have all received careful attention. It is essential that the calf should be treated in such a manner as to ensure that it is kept thriving and growing steadily, without any checks as the result of chills, bad feeding, or unclean surroundings. Close individual attention must be constantly given to the appearance and progress of each animal, so that any sign of disturbance in health may be immediately detected. This is the real secret of success in rearing good calves and having good store cattle.

On farms where supplies of milk are rather scarce, there is sometimes a tendency to use patent calf meals as a substitute, especially after the first few weeks of the calf's life. These meals are, however, often far too costly in proportion to their real feeding value, and farmers are recommended to follow the advice given in last month's Report, viz., to feed on whole milk during the first four weeks of the calf's life, and subsequently, to replace the whole milk gradually with separated milk, along with a small amount of a mixture of equal parts of crushed oats, bran, and maize meal fed dry after the milk.

Dishorning of Calves.—This operation should be carried out on calves intended for sale as beef or stores, by means of caustic potash. It must be done before the animals are nine days old. Full particulars are given in Leaflet No. 5.

Docking and Castration of Lambs.—Where docking of lambs has not already been carried out, it should receive immediate attention, as the operation will be of great assistance in reducing trouble with maggots during summer. The lambs are at the most suitable stage when between three and six weeks old, and there is little risk of any ill-effects from the operation, provided cleanliness is observed, and the lambs are not over-heated or roughly handled. The castration of ram lambs may be carried out at the same time, and to avoid the risk of infection, the wounds should be dressed with a mild disinfectant such as "Lysol" or Jeyes' Fluid at the strength of a teacupful to ten pints of water. Full details are given in Leaflet No. 63.

At this season ewes are very liable to excessive scouring due to the laxative effect of young grass, and it is therefore advisable to continue giving a little hand-feeding to counteract this trouble. All loose, dirty tangles of wool should be clipped away from the hindquarters in order to avoid discomfort to the ewes and suckling lambs; loose wool on the ewes may be a pre-disposing cause of "wool-ball" in lambs.

Feeding of Dairy Cows—As supplies of pasture should, from now onward, be sufficient to provide the necessary food materials for milking cows, the feeding of concentrates, except in the case of very heavy milkers or where grass is poor, is no longer necessary.

Condiments, Conditioners and Tonics.—Attention is again directed to the fact that sales of these are still being reported from various districts, and that the prices charged for them are very high. Farmers are being induced to buy them because of the extravagant claims which the sellers make when effecting sales. If a good ration of meals is being used, and the animals are in good health, there is seldom any necessity or justification for the use of condiments or tonics, and their use inevitably adds to the cost of feeding, which, at the present prices of even the commoner foods, is already too high. Farmers are advised to consult the Agricultural Instructor before making any purchases of commodities of the nature mentioned.

SEASONAL GARDEN AND ORCHARD NOTES.

Spraying Apple Trees.—Apple trees of most varieties will now be at the stage of growth at which the second application of Bordeaux mixture for the control of apple scab disease should be applied. This application should be made before the blossoms open. When possible, spraying should be undertaken only when the spray dries quickly on the trees. Spraying during dull weather, when the spray lies on the trees for a considerable time before drying, is likely to result in damage to both foliage and fruit.

If caterpillars are present on the trees, lead arsenate powder should be added at the rate of 1¼ lb. to each 40 gallons of the Bordeaux mixture. Where tar-oil spraying was not carried out during the dormant period it will be advisable to add 6 fluid oz. of nicotine or 8 oz. of nicotine sulphate to each 40 gallons of the Bordeaux mixture to destroy insects such as aphides and apple sucker. Particulars of the full spraying programme for apple trees are given in Leaflet No. 33.

Grafting Apple Trees.—The grafting of apple trees should be undertaken whenever the sap is moving freely. If the various types of "frame-work" grafting are adopted it is possible to obtain cropping trees in a couple of year's time. In this way trees of good varieties can be substituted for those of inferior sorts.

American Gooseberry Mildew.—Where an attack of this disease is anticipated, gooseberry bushes of such varieties as Whinham's Industry, Crown Bob, Warrington, Whitesmith, etc., should be sprayed just after flowering with a solution of ammonium polysulphide prepared by adding ¼ pint ammonium polysulphide to 5 gallons of water, together with from 2 to 6 oz. of soft soap. This spray, however, cannot be used on bushes of yellow or amber varieties, as it would cause defoliation.

Bushes of the amber varieties should be sprayed at the same stage of growth with a solution of washing soda. This is prepared by dissolving 10 oz. common washing soda in 5 gallons of water and adding ¼ pint skimmed milk. A second application of either of these sprays should be given two or three weeks after the first. Full particulars of spraying for the control of this disease are given in Leaflet No. 49.

Black Currant Mite.—Black currant bushes which are slightly attacked by black currant mite should be sprayed when in *full flower* with Winter Volck. The spray fluid is prepared by mixing thoroughly ¼ pint of Winter Volck as purchased with a similar quantity of water, and then adding sufficient water to make 5 gallons. Bushes which are severely attacked by this pest should be uprooted and burned.

Strawberries and Raspberries.—Plantations of these fruits should now be cleared of all weeds and mulched with strawy manure. Full particulars of the cultivation of strawberries and raspberries are given in Leaflets No. 68 and 71, respectively.

Vegetables.—Seeds of lettuce, peas, beans, and turnips should be sown now for succession. Towards the end of April, or early in May, beetroot, French beans, runner beans and vegetable marrow seeds may be sown out of doors, and a further sowing of peas and broad beans should be made at the same time for succession.

Flowers.—Flower beds and borders should be cleaned of all weeds and rubbish, and left tidy. Seeds of wallflowers, forget-me-nots, Canterbury bells, etc., should be sown early in May.

General.—Keep a sharp look-out for pests, and spray with a suitable insecticide as soon as they are noticed. Weeds should be kept down, for if they are allowed to seed trouble will be greatly increased. Keep the hoe going among all growing crops, the continual use of the hoe will help to let sun and air penetrate the soil.

Care of Lawns.—Lawns should be mown regularly, and if weeds are present should be dressed with a suitable lawn sand. The following mixture is recommended:—

1 part by weight calcined sulphate of iron,
3 parts by weight sulphate of ammonia,
20 parts by weight sand.

This should be applied at the rate of 4 oz. per square yard once a month during the growing season.

SEASONAL POULTRY-KEEPING NOTES.

Hatching.—The hatching of eggs of even the lighter breeds, such as the Leghorn, should now be discontinued, as there is rarely any profit in rearing pullets which will not be laying until the peak of the winter egg prices is past.

Weaning from Heat.—While it is desirable from the point of view of economy and labour-saving to wean chickens from heat at the earliest possible age, the change must be made gradually, otherwise there will be a risk of mortality amongst the chicks as the result of chills. The temperature of the brooder or hover should be steadily reduced for some time before the heat is to be finally removed, and during the process of weaning from heat, precautions should be taken to prevent the chickens huddling and getting smothered; a platform of flat wooden perches about six inches high will be found useful, as perching on this platform helps to harden off the birds and permits the circulation of air from below.

Fattening of Cockerels.—As soon as the male birds can be detected, they should be separated, penned and fattened off as quickly as possible. Accordingly, they should get plenty of food of a fattening nature, along with a supply of separated milk or buttermilk if available; a suitable mash is equal parts maize meal, pollard and Sussex ground oats, wet with separated milk or buttermilk. Where neither form of milk is available, a little meat meal should be added to the mixture.

Management of Growing Pullets.—The ideal to be aimed at in the growing pullet is a steady, gradual growth absolutely free from forcing at any stage. Excessively early maturity must be avoided at all costs if the bird is to be capable of living and laying for a normal period, the precocious early layer being rarely of a desirable type. It is essential, therefore, to avoid the use of excessive quantities of foods of a forcing nature, such as fish meal or meat meal.

A suitable meal mixture for young pullets is as follows:—

3 parts by weight bran.
4 „ „ „ sharps.
2 „ „ „ Sussex ground oats.
1 part „ „ maize meal.
¼ „ „ „ fish meal or meat meal.

The fish meal or meat meal may be replaced by separated milk, but only a limited quantity of the latter should be given, in order to avoid forcing the birds.

To obtain the best results, the pullets should be reared on the cleanest and freshest ground on the farm, in order to get them safely past the stage during which they are most susceptible to the parasitic troubles which are commonly spread by unclean ground. From this point of view houses of the portable type are ideal, as they can readily be moved to clean ground at regular intervals, thus giving the birds ample scope and avoiding the accumulation of their droppings on one section of the field.

Culling.—Both breeding and laying flocks should be rigorously culled from now onwards, and all hens showing lack of vigour disposed of as soon as possible. There can be no profit in retaining such "passengers", and the clearance will leave all the more room for the remainder, and for the young pullets later coming forward. Where possible, however, old hens which have proved to be good breeders, and which are still showing signs of stamina and health, should be retained with a view to breeding from them again next season.

Turkeys.—It is advisable to set the first dozen eggs as soon as they are laid, in order to test for fertility, so that a change in the mating may be made if the first was unsuccessful. Information regarding hatching, rearing, and fattening may be obtained from Leaflet No. 37.

Preservation of Hen Eggs.—If it is desired to preserve eggs for winter use, advantage of the period of low prices should now be taken. The waterglass method is most generally used, and as a guide to the method of use, a solution of 1 lb. of waterglass in 1½ gallons of water in a three gallon receptacle is sufficient for 10 dozen eggs. Only perfectly fresh, clean, infertile eggs with shells of good texture should be used, and the top layer of eggs in the container should be at least two inches below the surface of the liquid. Evaporation will be prevented by covering with a light lid, or a piece of waxed paper, and storing in a cool place.

ANNOUNCEMENTS AND REMINDERS.

Ox-Warble Fly.—The first two dressings of cattle attacked by warbles should now have been completed. The third dressing must be applied between the 10th and 17th May, and should be carried out thoroughly with one of the recommended preparations.

Dishorning of Calves.—This operation should be done before the calf is nine days old. The caustic potash method is simple, cheap, and effective.

Seeds Mixtures.—Use a simple mixture of known composition of good grass and clover seeds when sowing down land to grass. Leaflet No. 40 gives examples of suitable mixtures for different soils.

Leather-Jackets in Oats.—If attack is suspected, use a poisoned bait immediately. Do not wait until the braird is almost ruined.

The Growing Pullet.—Avoid forcing at all costs. Feed a ration which will encourage steady normal growth, and run the birds on free range.

The Orchard.—Pay close attention to the spraying calendar, and keep a close look-out for pests. If any trouble appears, take the necessary control measures.

CLASSES

The following classes have been arranged by the County Down Committee of Agriculture.

Day and date of commencement of Class.	Centre.	Time at which Class is held.	Subject.
Monday, 4th April	Young Farmers' Hall, Killaughey Road, Donaghadee.	2-30 p.m.	Butter-making.
Thursday, 21st April	Mr. T. M'Roberts', Ballykelly, Blackscull, Dromore.	3-0 p.m.	Butter-making.

Each of the above classes will be continued for a period of at least three weeks.

SIXTEENTH EGG LAYING TEST AT STORMONT.

The sixth period of four weeks ended on the 17th March, 1938.

There was a definite increase in egg production, and a slight decrease in the proportion of scoring eggs. The total number of eggs laid during the period was 12,574, which, on the basis of the entire original flock, gives an

average of 17.7 eggs per bird. Of this number 1,847 or 86.2 per cent. were scoring eggs (super-grade and first-grade), whereas the percentage of scoring eggs in the previous period was 88.9 per cent. The average egg production to date for all birds originally penned is 81.6, as compared with 88.3 for the first half of the previous test.

The highest sectional average egg production for the period is to the credit of the birds in Section 4 (any other pure breed), viz., 19.4 eggs per bird.

Nine birds died during the period, bringing the total number of deaths to 40. This represents a mortality rate of 5.6 per cent. as compared wth 3.2 for the corresponding 24 weeks in the previous test.

The following are particulars of the leading pens in each Section at the end of the sixth period :—

SECTION 1. WHITE WYANDOTTES (OPEN). 22 PENS.

Position	No. of Pen	Name and Address of Owner.	Number of eggs laid.				Test Score
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	10	Mrs. J. R. Jackson, Fortview, Coleraine, Co. Londonderry.	132	429	127	5	561
2	7	Lt.-Col. J. P. Galbraith, Clanabogan, Omagh, Co. Tyrone.	232	308	43	1	540
3	19	Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.	204	319	79	1	523
4	16	Mr. T. J. M'Millan, Crossgar, Co. Down.	312	199	11	—	511

SECTION 2. WHITE LEGHORNS (OPEN). 9 PENS.

1	29	Mr. J. Stevenson, Maze View, Corcreevy, Hillsborough, Co. Down.	150	347	81	9	497
2	31	Mr. J. O. Turkington, Derryinver, Lurgan.	350	144	12	1	494
3	26	Mr. T. J. M'Millan, Crossgar, Co. Down.	267	167	26	—	434

SECTION 3. RHODE ISLAND REDS (OPEN). 26 PENS.

Position	No. of Pen	Name and Address of Owner.	Number of eggs laid.				Test Score
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	39	Mrs. Hamilton Farr, Elsneuk, Dundrum Road, Newcastle, Co. Down.	452	145	7	1	597
2	49	Mrs. J. M'Neill, Drain's Bay, Larne, Co. Antrim.	285	257	10	—	542
3	51	Mr. N. Ormsby, Harryville, Lisburn, Co. Down.	197	302	78	2	499
4	55	Mr. W. Patton, The Hill, Loughries, Newtownards, Co. Down.	203	291	142	11	494

SECTION 4. ANY OTHER PURE BREED (OPEN). 15 PENS.

1	67	Mr. R. Holmes, Moneycarrie, Killykergan, Coleraine, Co. Londonderry. (Buff Rocks.)	477	132	7	1	609
2	68	Mr. R. Holmes, Moneycarrie, Killykergan, Coleraine, Co. Londonderry. (Buff Rocks.)	329	267	41	3	596
3	66	Greenmount Agricultural & Horticultural College, Muckamore, Co. Antrim. (Light Sussex.)	122	293	126	2	415

SECTION 5(*a*). WHITE WYANDOTTES (STATION-HOLDERS). 9 PENS.

1	82	Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down.	269	254	43	—	523
2	76	Miss A. Brown, Ballyhill, Crumlin, Co. Antrim.	130	378	156	1	508
3	81	Miss A. Peel, Aghadalgon, Roses Lane Ends, Belfast.	213	244	75	2	457

SECTION 5(*b*). WHITE LEGHORNS (STATION-HOLDERS). 7 PENS.

1	91	Miss I. J. Magill, Mulloughdrin, Dromara, Co. Down.	413	137	78	1	550
2	90	Mrs. J. Knox, Shanmullagh, Ederney, Co. Fermanagh.	217	276	22	—	493
3	89	Miss I. Gilmer, Rashee, Ballyclare, Co. Antrim.	243	241	19	—	484

SECTION 5(*c*). RHODE ISLAND REDS (STATION-HOLDERS). 18 PENS.

Position	No. of Pen	Name and Address of Owner.	Number of eggs laid.				Test Score
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	102	Mrs. R. M'Giffert, Rathcunningham, Toye, Belfast.	291	321	29	—	612
2	104	Miss S. M'Kee, Ardmillan House, Killinchy, Co. Down.	125	463	96	2	588
3	94	Miss S. M. Donaghy, Hilden, Ballymoney, Co. Antrim.	269	243	41	5	512

SECTION 6. POULTRY CLUBS AND YOUNG FARMERS' CLUBS. 12 PENS.

1	116	Banbridge and District Poultry Club, Co. Down. (Rhode Island Red)	157	330	88	8	487
2	114	Ballywalter Young Farmers' Club, Co. Down. (Rhode Island Red)	208	242	28	—	450
3	115	Ballywalter Young Farmers' Club, Co. Down. (White Wyandottes)	262	170	107	10	432

"Test Score" means the total of the super-grade and first-grade eggs.

Mrs. R. McGiffert's pen, No. 102, of Rhode Island Reds in the Station-holders' Section for that breed retains 1st place in the entire test, while Mr. R. Holmes' pen, No. 67, of Buff Rocks in Section 4 is now second. Pen No. 39 of Rhode Island Reds in Section 3, entered by Mrs. Farr, still holds third place.

PRICES OF FEEDING STUFFS AT SPECIFIED CENTRES.

The following table shows the retail cash prices per cwt. of Feeding Stuffs at 1st April, 1938, in ten representative centres in Northern Ireland.

	Antrim	Armagh	Ballymena	Belfast	Castlewellan	Coleraine	Dungannon	Enniskillen	Omagh	Strabane
Protein Foods :	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Linseed (whole)	—	16 0	16 0	16 0	20 0	20 0	18 0	18 6	20 0	—
Linseed Cake, home-made ..	12 6	13 0	12 3	12 0	—	—	11 6	11 9	12 6	—
Linseed Cake, foreign ..	11 6	12 0	11 6	11 6	12 3	12 0	11 0	10 0	11 6	10 9
Linseed Cake Meal	11 6	13 0	11 6	11 6	12 3	11 6	11 6	12 3	11 6	10 9
Cotton Cake, decorticated ..	10 0	—	9 6	10 6	10 9	9 6	10 0	10 6	10 6	8 9
Earthnut Cake, decorticated ..	9 9	—	9 0	10 0	-	9 0	9 6	—	10 0	—
Soya Bean Meal (extracted) ..	10 3	11 0	10 9	11 6	- -	11 6	11 0	-	11 0	—
Fish Meal (60% protein) ..	17 6	17 0	16 3	16 6	-	16 6	16 6	16 6	17 0	17 0
Meat Meal (60% protein) ..	16 6	15 6	14 9	—	14 0	—	16 0	-	15 9	—
Meat and Bone Meal (40% protein)	—	10 6	10 6	10 0	-	11 6	11 6	—	—	12 6
Medium Protein Foods :										
Palm Kernel Cake	8 6	—	9 9	8 0	—	9 6	—	—	10 6	—
Palm Kernel Meal	8 6	9 6	—	8 0	—	9 6	—	—	—	—
Starchy Foods :										
Maize (whole)	7 6	7 6	7 10½	7 3	—	8 0	7 9	8 0	—	7 0
Maize Meal	8 0	7 10½	7 10½	7 9	8 0	8 0	7 9	8 3	8 0	8 6
Maize Flaked	8 3	8 9	8 6	8 3	8 3	8 6	8 6	9 0	8 9	9 0
Wheat (whole)	10 6	10 0	- -	10 0	11 0	12 0	10 0	-	—	—
Bran, Red	9 0	9 0	8 7½	9 0	9 3	8 9	8 6	9 6	9 6	9 0
Bran, White	9 6	10 0	9 9	10 0	10 0	10 6	10 0	10 6	10 6	10 6
Pollard, Brown	8 9	9 0	8 9	9 0	—	9 0	8 6	9 6	9 6	9 6
Pollard, White	—	10 0	9 7½	10 0	10 0	9 3	10 0	10 6	10 6	10 6
Barley Meal	10 0	10 3	9 6	10 0	9 9	10 0	9 6	10 6	10 0	11 3
Tapioca Root Flour	8 6	8 0	7 10½	—	-	8 3	8 0	-	—	—
Oats (whole)	9 0	9 0	8 7½	9 0	7 6	8 6	8 8	9 4	7 6	8 8
Crushed Oats	9 6	9 6	9 4½	9 6	8 0	9 0	9 3	10 0	8 6	9 8

NON-CONCENTRATES :—The average prices at representative markets at the beginning of April, 1938, were as follows :—Potatoes (Main Crop), 2/2¼d. per cwt. ; Turnips, 8d. per cwt. ; Upland Hay, 56/- per ton ; Meadow Hay, 47/3d. per ton ; Oat Straw, 42/7d. per ton.

AVERAGE PRICES OF FEEDING STUFFS.

The following table shows the average retail cash prices per cwt. of feeding stuffs at 1st April, 1938, with comparative prices as at the first of the previous month; the costs per unit of protein equivalent and of starch equivalent are also given in respect of each month.

	Protein Equivalent	Starch Equivalent	Average price per cwt. at 1st Apl., 1938	Average price per cwt. at 1st Mar. 1938	Cost per unit of protein equivalent April	Cost per unit of protein equivalent March	Cost per unit of starch equivalent April	Cost per unit of starch equivalent March
Protein Foods			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Linseed	19.0	119.0	18 1	17 7	19 0	18 6	3 0	2 11
Crushed linseed	19.0	119.0	18 11	18 7	19 11	19 7	3 2	3 1
Linseed cake (home-made)	25.0	72.0	12 3	12 3	9 10	9 10	3 5	3 5
Linseed cake (foreign)	25.0	72.0	11 5	11 4	9 2	9 1	3 2	3 2
Linseed cake meal	25.0	72.0	11 9	11 7	9 5	9 3	3 3	3 3
Decorticated Cotton cake	35.0	71.0	10 0	10 2	5 9	5 10	2 10	2 10
Decorticated Earthnut cake	41.0	73.0	9 7	9 7	4 8	4 8	2 7	2 8
Extracted Soya bean meal	38.0	64.0	11 0	10 11	5 9	5 9	3 5	3 5
Fish meal (60% protein)	53.0	59.0	16 9	16 6	6 4	6 3	5 8	5 7
Meat meal (60% protein)	55.0	61.0	15 5	15 10	5 7	5 9	5 1	5 2
Meat & bone meal (40% protein)	36.0	44.0	11 1	11 8	6 2	6 6	5 0	5 4
Medium Protein Foods								
Palm kernel cake	17.0	75.0	9 3	9 3	10 11	10 11	2 6	2 6
Palm kernel meal	17.0	75.0	8 11	9 3	10 6	10 11	2 5	2 6
Starchy Foods								
Maize	6.8	81.0	7 7	8 0	22 4	23 6	1 10	2 0
Maize meal	6.8	81.0	8 0	8 3	23 6	24 3	2 0	2 0
Flaked maize	8.6	83.0	8 7	8 11	20 0	20 9	2 1	2 2
Wheat	9.6	72.0	10 7	10 11	22 1	22 9	2 11	3 0
Red bran	10.0	43.0	9 0	8 11	18 0	17 10	4 2	4 2
White bran	10.0	43.0	10 2	10 1	20 4	20 2	4 9	4 8
Brown pollard	11.0	60.0	9 1	9 1	16 6	16 6	3 0	3 0
White pollard	11.0	60.0	10 1	9 11	18 4	17 5	3 4	3 2
Barley meal	7.0	70.0	10 1	10 1	28 10	28 10	2 11	2 11
Oats	7.6	60.0	8 7	8 3	22 7	21 9	2 10	2 9
Crushed Oats	7.6	60.0	9 3	8 11	24 4	23 6	3 1	3 0
Tapioca root flour	1.0	83.5	8 2	8 3	163 4	165 0	1 11	2 0
Non-Concentrates								
Potatoes	0.6	18.0	2 2¼	2 3	72 11	75 0	2 5	2 6
Turnips (Swede)	0.7	7.0	0 8	0 9¼	19 1	22 0	1 11	2 2
Upland hay	4.9	24.0	2 9½	3 0	11 5	12 3	2 4	2 6
Meadow hay	4.6	31.0	2 4¼	2 3¼	10 3	9 10	1 6	1 6
Oat Straw	0.9	20.0	2 1½	2 2¼	47 3	48 7	2 1	2 2¼

The object of the foregoing tables, besides providing information regarding the prices of feeding stuffs and the trend of prices, is to give purchasers a

guide as to the economic purchase of supplies. It should be understood that the price per ton is not a sound basis on which to judge whether or not a particular food or grade of a particular food is good value for money. The composition of the foods is the only basis on which different grades can be compared. The value of foods of different kinds, but of the same nature in reference to market prices, can also be compared on this basis.

In the case of an artificial manure which supplies only one fertilising ingredient as, for example, sulphate of ammonia, which supplies nitrogen, the cost of the unit of nitrogen at the price charged can be determined quite readily by dividing the price per ton by the percentage of nitrogen in the sample, and the figure thus obtained is the cost of a unit of nitrogen. By this method the most economical source of nitrogen can be ascertained. Similarly, in the cases of phosphatic and potassic manures.

With feeding stuffs, however, the same method cannot be applied to determine comparative values. This is because every feeding stuff contains three important food constituents in varying proportions. These are (1) carbohydrates, (2) oils or fats, and (3) proteins or albuminoids. The carbohydrates comprise a group of substances such as starch, sugar and cellulose. These substances supply heat or energy to the animal, and the surplus goes to form fat. They are the fuel which the animal requires to keep the body "fires" burning. The oils of a feeding stuff are also heat and energy suppliers, and the surplus is stored as fat. The oils are approximately $2\frac{1}{2}$ times more valuable than the carbohydrates as heat and energy producers, but excess in a ration may lower its digestibility and cause digestive troubles. The proteins are the most valuable and most expensive food constituent. They contain nitrogen and are the part of the food from which products which contain protein are chiefly made. Thus the protein products, such as lean meat, milk and eggs, are formed principally from protein, and young, growing animals, dairy cows and laying hens must have an adequate quantity of protein for full growth, development and production.

While all animals require a certain amount of carbohydrates, oils and proteins, the relative amounts depend on the class of stock. For example, a two-year-old fattening bullock requires much less protein than a dairy cow in milk and a fattening chicken less than a laying pullet.

There are wide differences in the composition of the different kinds of feeding stuffs. Some are rich in carbohydrates and, therefore, particularly valuable for fattening purposes. These include oats, maize, barley and wheat, and their products. Others are rich in protein and are valuable for producing flesh, milk and eggs. These include decorticated cotton cake, decorticated earthnut cake, meat meal and soya bean meal.

In the following table the composition of some of the commonly used feeding stuffs is shown—

	Water.	Protein.	Oil.	Carbohydrates.
Non concentrates				
Swede turnips ...	88	1	0.2	9
Potatoes	75	2	0.1	21
Cabbage	89	1.5	0.5	8
Oat Straw	14	4	2	37
Meadow hay ...	10	10	3	45
Pasture grass ...	80	3.5	0.8	10
Fattening Foods				
Crushed oats ...	13	9	6	60
Maize meal ...	12	10	4	70
Barley meal ...	13	12	2	66
Pollard ...	13	15	5	57
Flesh forming foods				
Decorticated Cotton cake	9	40	9	26
Decorticated Earthnut cake	10	46	7	23
Meat meal ...	11	60	6	—
Soya bean meal ...	11	44	1.5	32

The problem confronting the purchaser of feeding stuffs, who is concerned with the business of getting best value for money, is one which is much more difficult to solve than is the case with artificial fertilisers. There are at least four aspects of the problem to be considered:

(1) The quality of the different foods offered for sale. This can be determined by reference to the particulars of composition which a seller must give a purchaser in accordance with the Fertilisers and Feeding Stuffs Act.

(2) The physical condition of the foods, and if fresh or stale.

(3) The suitability of the foods for the purpose in view.

(4) The comparative values of the foods at the prices quoted.

The chief concern of this section of the Report is comparative values and, therefore, that aspect of the problem will be considered specifically.

The proteins play a part in the nutrition of the animal which cannot be taken by either carbohydrates or oils. In addition to this, the proteins, carbohydrates and oils have very different values for the production of energy or fat. It therefore follows that the simple procedure of totalling the percentages of these three ingredients and dividing this total into the price per ton in order to obtain a value for a unit of the food-stuff is quite unsound. Various methods have been used to compare the values of different feeding stuffs, but none is completely satisfactory. For practical purposes the least cumbersome is the

method whereby the food-stuffs are placed in groups of similar composition, and the values of the members of each group are then compared by consideration of (a) their protein equivalents, and (b) their starch equivalents. The starch equivalent is the number of pounds of starch which would be required to produce the same amount of "fat" in an animal as 100 pounds of the food-stuff in question. It is essentially a measure of the fat-producing value of the food-stuff. The protein equivalent is the number of pounds of digestible true protein, plus half the number of pounds of non-protein nitrogenous substances such as amides, present in 100 pounds of the foodstuff. This is a measure of the value of the food-stuff to the animal as a source of protein.

By this method all foods can be reduced to comparable standards based on (1) the protein equivalent, and (2) the starch equivalent.

The next stage in comparing values is to determine the cost of a unit of protein equivalent and of starch equivalent in the different foods which are being compared, and to enable the reader to do this the protein and starch equivalent figures for the different foods are given on the table on page 687, and also the cost per unit of protein equivalent and of starch equivalent in each case. These costs have been determined by dividing the protein equivalent figure and the starch equivalent figure, respectively, into the current price per ton, and the lower the quotient figures thus obtained the cheaper is the particular food as a source of protein or of starch equivalent as the case may be.

However, it would be quite misleading to compare the cost of a unit of protein equivalent in a protein food (which is purchased principally for its protein) with the cost of a similar unit in a starchy food. In other words, foods such as maize meal and pollard cannot be compared on the basis of cost of protein equivalent with foods such as decorticated cotton cake and meat meal.

The best course to adopt is to consider for what purpose the particular food is required, decide what foods are suitable for that purpose, examine the samples of these different foods which are offered and, if all appear to be satisfactory, apply the unit value system of determining which one provides protein equivalent or starch equivalent at the cheapest rate. A few examples may be helpful in explaining the procedure.

(1) Suppose it is intended to purchase a protein food for the purpose of balancing a ration for dairy cows. The protein foods suitable for dairy cows are decorticated cotton cake, decorticated earthnut cake and soya bean meal. From the table on page 687 it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows:—

Decorticated cotton cake	...	...	5/9d.
Decorticated earthnut cake	...	...	4/8d.
Soya bean meal	...	...	5/9d.

Accordingly decorticated earthnut cake is the cheapest source of protein.

(2) A protein food is required as a milk substitute to balance the ration for fattening pigs. The foods suitable for this purpose are soya bean meal, meat meal and meat and bone meal. Referring again to the table, it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows:—

Soya bean meal	...	...	5/9d.
Meat meal (60% protein)	...	...	5/7d.
Meat and bone meal (40% protein)	...		6/2d.

Therefore meat meal (60% protein) is the cheapest milk substitute for pigs at the present prices of the purchased foods suitable for pigs. This example shows also how the price per ton may mislead a purchaser into thinking he is being economical when he buys at the cheapest price. The 60% meat meal costs 4/4d. per cwt. more than the 40% meat and bone meal, and yet it is a cheaper source of protein than the latter. Besides, a lesser proportion in the meal mixture will suffice, and having usually a lower content of oil than the 40% grade, it is likely to prove more satisfactory than that grade, both from the thriving point of view and its effect on the quality of the bacon.

(3) Whether is it more economical to feed white pollard than brown pollard or white bran than red bran, even though the prices per ton of the white grades are higher than those of the brown or red grades? The figures in the table show that the cost of both the unit of protein equivalent and of starch equivalent is less for the brown pollard than the white, and less for the red than the white bran. It follows, therefore, that at current prices the coloured grades of pollard and bran are cheaper than the white grades. It should be remembered in this connection, however, that the comparison of costs in these cases has been made on the assumption that the composition of the coloured grades is the same as that of the white grades. A pollard containing say, 8 per cent. fibre, even if of a white colour, would have a far lower feeding value than one containing only 4 per cent. of fibre. Colour is not a guide as to the feeding value of pollard or bran.

PRICES OF FERTILISERS AT SPECIFIED CENTRES.

The following table shows the retail cash prices per ton of fertilisers at 1st April, 1938, in the representative centres in Northern Ireland.

	Antrim	Armagh	Ballymena	Belfast	Castlewellan	Coleraine	Dungannon	Enniskillen	Omagh	Strabane
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Nitrogenous Manures :										
Nitrate of Soda (15.5% N.) ..	8 10 0	9 0 0	8 0 0	8 0 0	8 5 0	—	8 10 0	9 10 0	—	8 5 0
Sulphate of Ammonia (20.6% N.)	8 0 0	8 5 0	8 0 0	7 12 6	8 0 0	8 0 0	8 0 0	8 0 0	8 0 0	8 5 0
Nitro Chalk (15.5% N.) ..	8 0 0	—	8 10 0	7 10 6	8 5 0	—	8 10 0	8 15 0	8 10 0	8 5 0
Phosphatic Manures :										
Superphosphate (16% S.P.A.) ..	3 15 0	3 17 6	3 17 6	3 16 3	3 18 9	3 18 9	3 17 6	4 2 6	4 0 0	4 0 0
Semsol (5% S.P.A., 15½% P.A.) ..	3 12 6	3 12 6	3 10 0	3 5 0	3 10 0	3 10 0	3 12 6	3 15 0	3 12 6	3 10 0
*Basic Slag (18% to 20% P.A.) ..	4 0 0	—	4 0 0	3 10 0	—	4 0 0	—	3 12 6	—	3 17 6
Gafsa Rock Phosphate (26% P.A.)	3 5 0	3 5 0	3 5 0	2 15 0	3 7 6	3 2 6	—	3 7 6	3 6 3	3 5 0
Potash Manures :										
Kainit (14% P.)	—	—	3 10 0	3 0 0	—	3 12 6	—	—	3 15 0	3 15 0
Potash Salts (20% P.) ..	4 10 0	4 10 0	4 7 6	4 0 0	4 5 0	4 10 0	4 5 0	—	—	4 5 0
Potash Salts (30% P.) ..	5 15 0	—	5 10 0	5 5 0	5 7 6	5 17 6	6 0 0	6 10 0	5 17 6	5 10 0
Muriate of Potash (50% P.) ..	8 15 0	9 0 0	8 15 0	8 10 0	8 12 6	9 0 0	9 0 0	9 10 0	9 0 0	9 0 0
Agricultural Salt	1 10 0	2 0 0	1 15 0	3 10 0	2 5 0	—	2 0 0	2 0 0	—	3 0 0

Abbreviations : N—Nitrogen. S.P.A.—Soluble Phosphoric Acid. P.A.—Phosphoric Acid. P—Potash.

*If obtained under the Land Fertility Scheme, the price of British made basic slag will be 25 per cent. less than the figures quoted, since a subsidy equivalent to one-quarter is payable.

The cost of the unit of fertilising ingredient is determined by dividing the price per ton by the percentage of the ingredient contained in the manure and this method of determining values is the only sound basis on which two different manures or two grades of the same manure, supplying the same fertilising ingredient, can be compared. The price per ton is not a reliable guide as to which is the better value for money. For example, at the prices ruling at Belfast for the various manures, as shown on the table on page 692 the costs of the units of the fertilising ingredients are as follow:—

Nitrate of Soda (15.5% N.)	10/3¾	(Nitrogen)
Sulphate of Ammonia (20.6% N.)	7/4¾	,,
Nitro Chalk (15.5% N.)	9/8½	,,
Superphosphate (16% S.P.A.)	4/9½	(Phosphoric Acid)
Semsol (5% S.P.A., 15½% P.A.)	3/2	,,
Basic Slag (18% P.A.)	3/10¾	,,
Gafsa Rock Phosphate (26% P.A.)	2/1½	,,
Kainit (14% P.)	4/3½	(Potash)
Potash Salts (20% P.)	4/–	,,
Potash Salts (30% P.)	3/6	,,
Muriate of Potash (50% P.)	3/4¾	,,

It is seen that the price of 14% Kainit is £3 0s. 0d. per ton, and of 30% Potash Salts is £5 5s. 0d. per ton, and it might be concluded that the Kainit was the better value for money. This is not so. The 30% Potash Salts contains more than twice as much Potash as the Kainit, and is, therefore, a cheaper source of potash when the price is even double that at which Kainit is offered. The cost of a unit of potash in the 30% Potash Salts is seen to be only 3/6d., whereas the cost of a unit of potash in Kainit is 4/3½d. At the prices ruling for these manures, 30% Potash Salts is, therefore, better value for money than Kainit. Similarly, it is seen that at the prices prevailing at Belfast Gafsa Rock Phosphate is the cheapest source of phosphoric acid and Sulphate of Ammonia is the cheapest source of Nitrogen.

In connection with the costs of the units of phosphoric acid at Belfast, as shown in the table above, it should be noted that in the case of Superphosphate, the cost is that of a unit of soluble phosphoric acid: whereas in the cases of Basic Slag, Semsol, and Gafsa Rock Phosphate, the figures represent the cost of a unit of insoluble phosphoric acid. It would not, therefore, be correct to compare the unit price of the phosphoric acid in Superphosphate with those of the phosphoric acid in the other three.

PRICES OF AGRICULTURAL SEEDS

The following table shows the average retail cash prices of seeds at 1st April, 1938, with comparative figures for the corresponding date in 1937 and 1936.

		1938	1937	1936
Corn (Seed) :				
Wheat (Irish grown)	per cwt.	13 3	11 0	8 6
,, (imported)	,,	15 6	15 0	12 0
Oats (Irish grown)	,,	10 4½	10 2	7 4
,, (imported)	,,	12 5	13 6	9 6
Barley (Irish grown)	,,	13 2	12 1	8 11
,, (imported)	,,	14 6	14 8	11 0
Root and Green Crops (Seed) :				
Turnips (Swede)	per lb.	1 11	2 8	1 11
,, (Aberdeen)	,,	1 5	1 8	1 5
Mangels	,,	1 1	1 6	1 7
Carrots	,,	5 0	4 0	4 10
Parsnips	,,	2 8	1 7½	2 7
Rape	,,	0 6	0 7	0 7
Clover Seeds :				
Broad Red	,,	0 11½	1 0½	0 11
Late-flowering Red	,,	1 7	1 8	
White	,,	1 7½	1 3½	1 1
Wild White (Kentish)	,,	5 10	8 0	3 11
Alsike	,,	1 6	1 3	1 5
Flax Seed :				
Commercial :				
Dutch	Per bag of 13 to 14 stones	49 0	43 9	45 9
Pure Line Blue-flowering Varieties :				
Stormont Cirrus	per cwt.	60 0	75 0	75 0
Stormont Gossamer	,,	63 4	75 0	70 0
Liral Monarch	,,	61 6	75 0	72 6
Liral Dominion	,,	62 6	75 0	73 0
Liral Crown	,,	65 0	75 0	73 9
J.W.S.	,,	35 10	43 4	66 3
White-flowering Concurrent	,,	34 8	40 4	63 4
Grass Seeds :				
Irish Perennial 28 lb. to bushel	per bushel	4 11	7 3	6 2
26 lb. ,,	,,	4 7	6 0	5 8
Scots Perennial 28 lb. to bushel	,,	5 11	8 8	7 3
26 lb. ,,	,,	5 3	8 0	6 8
Irish Italian 22 lb. to bushel	,,	4 4	5 2	5 3
French Italian 22 lb. to bushel	,,	5 2	6 6	6 5
Cocksfoot	per lb.	0 10	0 8½	0 6
Meadow Fescue	,,	0 7¾	0 10	0 7
Timothy	,,	0 6½	0 7	0 6
Crested Dogstail	,,	1 3	1 9	—
Rough-stalked Meadow Grass	,,	1 10½	2 1	—
Potatoes :				
British Queen	per cwt.	5 6	7 0	5 9
Arran Victory, Kerr's Pink, Up-to-date	,,	2/6 to 4/-	4/- to 6/-	3/6 to 6/6

TRADE AND PRICES OF LIVE STOCK AT BELFAST AUCTION MARTS.

Fat cattle on offer at the Belfast Auction Marts during early March varied somewhat in quality, and there was a noticeable improvement towards the end of the month. There were good attendances of buyers, including shippers, and trade on the whole was better, a strong home demand being a feature. The average price per live cwt. was influenced to some extent by the quality of the offerings, and rose from 40/6d. in the middle of the month to 41/9d. at the close. Super-grade animals recorded up to 45/- per live cwt., good commercial types 41/- to 42/-, and secondary animals around 40/- per live cwt.

Average offerings of store cattle were insufficient for the keen demand, particularly in the second half of the month, and sales throughout the month were brisk at high rates, top quality animals making up to 55/- per live cwt., while others ranged from 45/- to 50/- according to quality and finish.

Supplies of dairy cattle were smaller, and good quality animals were scarce, the bulk of the offerings being secondary and rough types. Except for the better types of springing and freshly-calved cows, which as a rule maintained recent rates, prices generally tended downwards.

At the auctions of fat sheep and lambs, trade varied with supplies, but had a firm undertone throughout. Quality animals sold at high prices, and others maintained satisfactory rates.

PRICES OF FAT STOCK.

Week ended	s.	d.
5th March, 1938 ..	41	3
12th „ „ ..	40	6
19th „ „ ..	40	6
26th „ „ ..	40	9
2nd April, „ ..	41	9
Average for month ..	40	11

Week ended	s.	d.
6th March, 1937 ..	35	6
13th „ „ ..	35	3
20th „ „ ..	36	0
27th „ „ ..	36	9
3rd April, „ ..	38	9
Average for month ..	36	6

PRICES OF OTHER STOCK AT THE BELFAST AUCTION MARTS.

Description.		Week ended 5-3-38	Week ended 12-3-38	Week ended 19-3-38	Week ended 26-3-38	Week ended 2-4-38
Fat Cows	Range of 1st quality	£15 to £22	£15 to £21-10	£15 to £22	£15 to £21	£15 to £21
	,, 2nd ,,	£12 to £17-10	£11 to £17-10	£11 to £16	£12 to £17-10	£12 to £16-10
Store Cattle : ..						
Forward Stores	Range of 1st quality	£14-10 to £15-12-6	£14-5 to £16-10	£14-10 to £18	£14-10 to £20	£15-10 to £20-10
	,, 2nd ,,	£12-10 to £14-5	£12-5 to £14	£12-5 to £14-5	£12 to £14	£12-10 to £16
Calves (under 12 months)..	,, 1st ,,	£9-10 to £12-5	£9 to £12	£9-5 to £12	£9-15 to £11-10	£10-10 to £12-15
	,, 2nd ,,	£6 to £9-5	£3-2-6 to £7-15	£6-17-6 to £9-10	£5-10 to £8-17-6	£5-10 to £9-15
Dairy Cattle :						
Milch Cows	Range of 1st quality	£23 to £28	£22 to £28-5	£22 to £25	£22 to £25	£22 to £26
	,, 2nd ,,	£17 to £22	£18 to £21	£17 to £21	£17 to £21	£18 to £21
Springers	,, 1st ,,	£20 to £22-10	——	£19 to £21-10	£20 to £24-5	£19 to £21
	,, 2nd ,,	£17 to £19-10	——	£16 to £18	£16 to £19-10	£16 to £18
Sheep and Lambs :						
Crossbred and White Ewes	Range of 1st quality	43/- to 70/-	44/- to 58/6	48/- to 65/-	40/- to 57/-	45/- to 60/-
	,, 2nd ,,	35/- to 52/-	35/- to 49/-	40/- to 49/-	30/- to 50/-	35/- to 49/-
Blackface Ewes	,, 1st ,,	30/- to 45/-	28/- to 45/- ..	35/- to 43/6	34/- to 47/-	34/- to 46/-
	,, 2nd ,,	23/6 to 34/-	20/- to 33/-	24/- to 34/-	25/- to 38/-	25/- to 34/-
Crossbred & White Lambs	,, 1st ,,	42/- to 61/-	42/- to 62/-	42/- to 62/-	42/- to 60/-	40/- to 67/-
	,, 2nd ,,	30/- to 44/-	30/- to 44/-	30/- to 52/-	30/- to 48/-	30/- to 49/-
Blackface Lambs ..	,, 1st ,,	10/- to 23/-	15/- to 27/6	24/- to 28/-	20/- to 30/-	20/- to 33/6
	,, 2nd ,,		10/- to 18/-	15/- to 23/-	13/6 to 19/-	15/- to 24/-
Rams	,, 1st ,,	50/- to 65/-	40/- to 70/-	50/- to 65/-	50/- to 62/-	50/- to 57/6
	,, 2nd ,,	38/- to 55/-		40/- to 56/-	40/- to 54/-	40/- to 51/-

PRICES OF LIVE STOCK.

Average prices of Live Stock at Fairs during the month of March, 1938.

Date	Fair	Calves (under 9 months)	Store Cattle	Fat Cattle (18 months and over)	Springers		Milch Cows	Fat Lambs (under 12 months old)	Fat Sheep (over 2 years old)	Young Pigs
					Cows	Heifers				
		Per head	Per cwt.	Per cwt.	Per head	Per head	Per head	Per head	Per head	Per head
		£ s.	Live weight.	Live wgt.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
1	Omagh	7 0	41/– to 42/6	39/–	17 5	16 10	16 0	†2 5	†2 0	—
2	Londonderry ..	—	35/– to 43/–	38/–	18 0	—	—	—	—	1 10
2	Rathfriland ..	6 19/3	38/6 to 45/–	40/–	17 5	16 5	17 5	‡0 17/3	*2 1/6	1 9/3
									‡1 10	
3	Ballymoney ..	7 7/6	38/– to 42/6	—	20 0	19 7/6	18 2/6	—	—	1 15
3	Strabane	7 0	44/6 to 45/–	38/6	16 0	19 0	—	—	—	—
4	Moy	—	39/– to 46/–	39/–	15 5	15 0	15 10	—	†2 5	—
8	Irvinestown ..	7 19	41/– to 45/–	37/6	16 10	17 0	16 0	*1 15	—	1 15
9	Crossgar ..	—	40/– to 44/–	—	19 10	21 0	17 5	—	—	1 17
9	Kilrea	5 0	37/– to 44/–	39/6	18 0	19 0	—	—	—	1 13
10	Enniskillen ..	6 16	40/– to 45/–	40/–	16 0	15 10	14 10	—	—	1 18
11	Ballygawley ..	—	35/– to 46/6	38/6	18 15	—	18 10	—	†1 15	1 19
14	Limavady ..	—	35/– to 42/6	39/–	18 0	16 5	—	—	—	—
16	Lisnaskea	6 1/9	33/– to 44/–	42/–	17 10	17 0	17 0	—	—	1 13
17	Ballynahinch ..	—	42/– to 45/–	—	18 10	18 0	17 0	—	—	1 18
19	Portadown ..	6 8/3	37/– to 42/–	39/–	20 0	17 0	20 0	—	—	1 15
21	Camlough ..	7 1	40/– to 45/–	40/–	20 0	18 0	16 0	—	†2 5	—
21	Moneymore ..	6 12/6	40/6 to 49/6	39/3	20 0	18 0	15 15	—	†1 18/6	1 17/6
22	Fintona	7 12/3	42/6 to 45/–	39/–	17 0	17 0	17 0	†2 5	†2 5	1 16
25	Castlederg ..	—	41/– to 45/6	39/–	14 10	—	—	—	†1 15	1 15
25	Killylea	—	31/6 to 46/–	39/6	16 10	—	15 0	—	†1 17/6	—
26	Ballymena ..	7 6	32/6 to 45/–	—	24 0	22 10	21 10	—	—	2 0
31	Antrim	—	44/– to 50/–	41/–	21 0	19 0	—	—	—	1 15

* Long Wool. † Downs and Crossbred. ‡ Mountain.

SHIPMENTS OF LIVE STOCK.

Statement showing the shipments of Live Stock from Northern Ireland ports during the following periods:—Months of March, 1938, February, 1938, March, 1937; Three months ended 31st March, 1938, and 31st March, 1937.

PORTS OF :—	CATTLE						SHEEP				PIGS			Horses
	Fat	Stores	Milch Cows	Spring-ers	Calves	Total	Fat	Stores	Lambs	Total	Fat	Stores	Total	
Belfast	5,312	9,719	989	38	—	16,058	1,450	—	7	1,457	5,455	—	5,455	191
Larne	9	2,986	—	13	—	3,008	—	—	—	—	1,153	179	1,332	25
Londonderry ..	437	7,389	16	14	359	8,215	397	—	5	402	330	—	330	19
Newry	—	107	—	—	—	107	—	—	—	—	—	—	—	—
Total, March, 1938 ..	5,758	20,201	1,005	65	359	27,388	1,847	—	12	1,859	6,938	179	7,117	235
Total, February, 1938 ..	5,666	13,082	920	35	262	19,965	3,516	—	—	3,516	7,382	80	7,462	194
Total, March, 1937 ..	7,779	21,410	1,093	69	365	30,716	4,052	—	66	4,118	10,344	412	10,756	180
Total, Three months ended 31st March, 1938 ..	16,558	45,636	2,994	175	857	66,220	12,479	—	12	12,491	27,148	537	27,685	600
Total, Three months ended 31st March, 1937 ..	23,118	44,281	3,103	202	802	71,506	15,499	—	66	15,565	32,696	752	33,448	494

IMPORTS AND EXPORTS

Table showing the Imports and Exports through Northern Ireland ports of certain Agricultural Products during the month of February, 1938, and the two months ended 28th February, 1938, with comparative figures for the corresponding periods in 1937. This information also includes trade with Eire across the land boundary.

(These figures are supplied through the courtesy of the Ministry of Commerce, and are subject to revision).

COMMODITY.	IMPORTS.				EXPORTS.			
	Month ended 28th February.		Two months ended 28th February.		Month ended 28th February.		Two months ended 28th February.	
	1938	1937	1938	1937	1938	1937	1938	1937
Bacon .. cwt.	3,230	1,949	6,145	3,784	28,492	31,651	57,668	63,980
Hams .. .. cwt.	1,333	1,571	2,537	2,910	9,467	8,865	20,657	19,471
Pork .. cwt.	166	681	477	1,535	2,837	3,049	4,697	5,536
Butter .. cwt.	14,613	13,381	27,883	27,089	213	137	414	302
Eggs . . Gt. Hds.	64,805	38,880	97,219	68,630	185,444	145,990	270,879	239,379
Oat Products (inc. Oatmeal) cwt.	2,340	1,836	4,378	3,483	5,120	8,780	12,685	20,529
Potatoes . tons	196	697	467	1,198	*21,207	*23,074	*47,930	*48,835
Poultry .. cwt.	246	453	545	896	11,475	25,062	62,054	61,828
Grass Seeds . cwt.	1,079	1,598	3,736	2,884	38,755	40,054	74,863	99,769

* These figures represent quantities of potatoes inspected for shipment by the Ministry.

There were no imports of oats direct from abroad during the month of February, 1938, or in the corresponding month last year.

Table showing the numbers of Live Stock (1) exposed for sale, and (2) sold at 20 fairs in Northern Ireland, during the months of March, 1937, and February and March, 1938 :—

Description of Live Stock.	March, 1937.		February, 1938.		March, 1938.	
	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.
Store Cattle ..	6,596	5,065	5,636	4,571	7,668	6,250
Fat Cattle ..	1,827	1,679	1,626	1,468	1,578	1,457
Dairy Cattle ..	997	761	965	789	1,273	1,048
Sheep ..	248	179	137	89	218	162
Lambs ..	79	69	143	96	158	87
Young Pigs ..	2,440	2,031	2,532	2,084	2,432	2,197

ACCOUNT OF TRADE AT FAIRS.

The offerings of store cattle at fairs held during March showed a slight increase in size over February, but were still below the normal for the time of the year. Shippers and dealers were again present in large numbers, and a very keen demand continued throughout the month. The quality and condition of the animals was fairly good. Strong cattle in forward condition especially were a fast-selling trade, while good quality small animals for grazing and heifers suitable for breeding were also in active request. The supply was again short of requirements, and good clearances were made at all centres. Prices were maintained at recent high levels, and at the close of the month there was a general tendency for values to harden.

Fat cattle were in moderate supply, and generally of good quality. Medium and light-weight animals, showing quality and finish, were purchased freely. Trade for beef animals generally was steady during March, and a large proportion of the offerings was sold at firm to better prices.

The moderate offerings of dairy cattle were in fairly good request. The best enquiry was for top-quality stock, and some good useful young cows and springing heifers continued to sell at profit, but otherwise trade was rather slower than in February, and prices generally easier, especially towards the close of the month. Good clearances were, however, effected for most descriptions, the only exceptions being aged cows and those with defective udders.

The very small numbers of sheep and lambs were mostly of inferior quality. A few good quality fat animals were sold for local requirements at unchanged rates, but prices generally were easier on the month.

Medium supplies of young pigs met a very active demand, and a considerable volume of trade was transacted at prices showing a noticeable improvement. Store pigs, at a few centres, were a good trade, and cleared readily at steady rates.

Small numbers of sows for breeding were offered at only a few centres. Suitable types were in limited numbers, and an improved trade at firmer rates.

15th April, 1938.

This report is issued free on application to the Secretary,
Ministry of Agriculture, Stormont, Belfast.

MINISTRY OF AGRICULTURE.

List of Leaflets and other Publications.

LEAFLETS.

No. 1. Flax Seed
" 2. Improvement of Farm Poultry.
" 3. Feeding for Egg Production.
" 4. Marketing of Eggs.
" 5. The Dishorning of Calves.
" 6. The Packing of Apples in Standard Boxes
" 7. Potato Trials.
" 8. Seed Testing for Farmers.
" 9. The Renovation of Orchards.
" 10. Fruit Tree Pests—Capsid Bugs.
" 11. Fruit Tree Pests—Aphides and Apple Sucker.
" 12. Fruit Tree Pests—Caterpillars.
" 13. Contagious Abortion in Cattle.
" 14. Cheese-making on the Farm.
" 15. Suitable Varieties of Fruit.
" 16. The Feeding of Dairy Cows.
" 17. Home Bottling of Fruits and Vegetables.
" 18. Marketing of Dead Poultry.
" 19. How to Feed Linseed.
" 20. The Hatching and Rearing of Chickens.
" 21. The Uses and Advantages of Portable Poultry Houses.
" 22. Leather-jacket Grubs.
" 23. The Handling and Care of Wool.
" 24. Fluke in Sheep.
" 25. The Rearing and Management of Young Horses.
" 26. Ordnance Survey Maps for Farmers.
" 27. How to Keep Eggs Clean.
" 28. The Construction of a Laying House for Poultry.
" 29. The Selection and Breeding of Laying Hens.
" 31. Coccidiosis in Poultry.
" 32. Roup of Poultry (Fowl Pox).
" 33. Spraying Calendar for Apple Orchards.
" 34. The Pruning of Apple Trees.
" 35. The Fattening of Pigs.
" 36. Advantages of Milk Recording.
" 37. The Raising and Fattening of Turkeys.
" 38. The Destruction of Charlock.
" 39. The Production of Clean Milk.
" 40. The Laying Down and Management of Temporary Pastures.
" 41. Blackleg, Blackquarter or Quarterill.
" 42. The Purchase of Balanced Rations for Dairy Cows.
" 43. Tuberculosis in Poultry.
No. 44. Results of Crop Experiments.
" 45. The Breeding and Rearing of Pigs.
" 46 Hints for Winter Egg Production.
" 47 The Care and Management of Sheep
" 49. American Gooseberry Mildew.
" 50. Potato Blight.
" 51. Butter-making on the Farm.
" 52. Gapes in Chickens.
" 54. The Breeding and Rearing of Calves.
" 55. Destruction of Ragwort or Bendweed.
" 56. Identification of Egg Supplies.
" 57. How to have Eggs of First Quality.
" 58. How the Fertilisers and Feeding Stuffs Act benefits the Farmer.
" 59. Bacillary White Diarrhoea (Pullorum Disease).
" 60. Advantages of Winter Agricultural Classes.
" 61. The Care and Management of Breeding Bulls.
" 62. The Production of Timber on the Farm.
" 63. Sheep—Castration, Docking, Foot-Rot and Care of Feet.
" 64. The Destruction of Warble Fly Maggots in Cattle.
" 65. The Packing of Apples in Barrels.
" 66. Seed Testing Facilities for Traders.
" 67. The Cultivation of Vegetables.
" 68. The Cultivation of Strawberries.
" 69. The Construction of Piggeries.
" 70. Ringworm.
" 71. The Cultivation of Raspberries.
" 72. Tree Planting for Shelter and Ornament.
" 73. The Propagation and Maintenance of Healthy Stocks of Potatoes.
" 74. New Pure Strains of Flax.
" 75. Pig Production and the Pigs Marketing Scheme.
" 76. Acarine (Isle of Wight) Disease of Bees.
" 77. Licensing of Milk Producers and Distributors.
" 78. Graded Milk.
" 79. The Picking and Storing of Apples.
" 80. Hoose or Husk in Farm Stock.
" 81. The Construction of Cow Houses.
" 82. White Scour in Calves.
" 83. The Care, Management and Feeding of the Poultry Breeding Stock.
" 84. Lime and Liming.

Any of the above leaflets may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

CIRCULARS.

No. 1. Phosphatic Fertilisers.
" 5. Why Pay a Tax on the Horns of Cattle ?
" 8. Basic Slag.
" 9. Smut in Oats.
" 10. Purchase of Fertilisers and Feeding Stuffs.
" 11. Fertilisers and Feeding Stuffs Act—General Summary.
" 12. The Treatment of Liver Fluke.
" 13. The ox-Warble Fly.
" 306. Fertilisers and Feeding Stuffs Act, 1926—Revision of Regulations.

MISCELLANEOUS PUBLICATIONS.

Store Cattle.
Reports on Egg-Laying Tests.
Crop Insurance.
List of Growers of Certified Crops of Immune Varieties of Potatoes.
List of Growers of Certified Crops of Non-Immune Varieties of Potatoes.
The Ministry's Monthly Report.
Register of Premium Stallions.
Guide to the Live Stock Breeding Act (Northern Ireland), 1922.
Guide to the Marketing of Fruit Act (Northern Ireland), 1932.

Any of the above publications may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The following publications can be obtained from His Majesty's Stationery Office, 80 Chichester Street, Belfast, at the prices stated :—

(1) The Annual Report of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(2) Annual Report upon the Agricultural Statistics of Northern Ireland. Price 2/- net.
(3) The Journal of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(4) The Agricultural Output of Northern Ireland, 1925. Price 2/6 net.

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